

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[PRICE 6D.]

THE PATENT SAFETY FUSE
FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS. This article affords the SAFEST, CHEAPEST, and MOST RELIABLE MODE of effecting this very hazardous operation. From many testimonials which the manufacturers have been favored from every part of the Kingdom, they select the following letter, recently received from John Taylor, Esq., of F.R.S.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this." Manufactured and sold by the Patentees, DICKFORD, SMITH, and DAVEY Cornwall.

Original Correspondence.

EXPLOSIVE OR "GUN" COTTON.

Sir,—The calculation of your correspondent, in your penultimate Number, on the relative value of "gun cotton" and gunpowder, is futile and foolish, because deficient in the proper elements essential to the solution. I am not, however, concerned with this part of the question at present; but with the almost incredible low temperature at which the "gun cotton" explodes. Your correspondent says 140° Fahr., but he will be startled when I tell him, that the "gun cotton" will certainly explode at a temperature not exceeding 78° Fahr., somewhat more than ONE-HALF of his estimate!—an astounding fact, and one which renders its employment extremely precarious and dangerous, above all, to the sportsman: the temperature, which the gun acquires on its discharge, is quite sufficient to explode the "gun cotton," on the fowling-piece being immediately reloaded. Its safe employment in tropical countries is entirely out of the question—even the temperature of our own summers is more than enough. It has exploded by REFLECTED heat, and would, doubtless, flash in the sunbeam. I have repeatedly proved, by the test of the thermometer, the low temperature at which the "gun cotton" will explode. I have not only shown this experiment publicly, but several times exploded it in my naked hand. I have also exploded it in contact with gunpowder, without the ignition of the latter, and have also exploded it on paper over the flame of a spirit lamp, resting on gunpowder, without the gunpowder being ignited, or the paper being charred! I have felt it my duty to call the attention of the secretary of the General Post-office to the exceeding great danger of its transmission by post. In a future communication, I shall resume the subject of the "gun cotton."—J. MURRAY: Portland-place, Hull, Nov. 5.

"GUN COTTON" APPLIED TO MINING PURPOSES.

Sir,—I am sorry to trespass again upon your columns, but the strictures in your last Journal call for one or two remarks. To that date of my letter in your last Number, I never observed a greater strength attributed to gun cotton than twice that of powder, and upon that I founded my calculation. The question of economy is still open—for Mr. Richard Taylor states, the equivalent now at one-fourth the weight of powder: now 2s. 2d., divided by four, is equal to 6d. per lb. against 4d. for powder. I do not apprehend that the 2s. 2d. can be shaken, as the true calculation. I do not battle with the other characters, though I do feel sceptical as to the practicability of compressing the cotton, without interfering with its explosive powers. I am so far "interested," that it is an object to know which can be brought cheapest to the mines—cotton or powder.

Nov. 2.

FAUVILLE'S NEW SYSTEM OF BORING.

Sir,—Since my former communication to you, on the subject of Fauville's newly-invented boring apparatus, I have held correspondence with some practical men, and also with some who have a deep interest in land, who think that its introduction into this country will prove a great national advantage. Practical men concur in expressing the same opinion of its amazing power, as that Mr. Reed, of Newcastle-upon-Tyne, gives in his letter, which appears in your valuable Journal of the 24th ultimo. Landed proprietors are on the tip-toe of sanguine expectation. If the invention be what it professes to be—and this is a question which scientific men can easily solve—why, in this day of sober as well as rash speculation, does not some enterprising spirit undertake to introduce it into this country? Shall the field of labour be kept unoccupied, till some foreigner comes over to take possession of it? In some parts of Staffordshire, the old mines are nearly exhausted, and everywhere the rising value of coal is a proof that the demand is greater than the supply; and this fact will tempt landed proprietors to have their estates tested, where there is a probability of finding coal, when it can be done with certainty, and at a comparatively trifling expense. To induce some one to make a beginning, I hereby certify, that as soon as an apparatus is provided, and terms are announced in your Journal, on which an experiment may be tried to the depth of 250 or 320 yards, I shall be glad to open a correspondence with the party;—and I have no doubt but my example will soon be followed by many others.—AN ADMIRER OF YOUR JOURNAL: Glasgow, Oct. 31.

THE GASES OF THE BLAST FURNACE.

Sir,—There is an extraordinary statement in your Journal of the 24th ult., which I hoped to have seen noticed in your last by some other pen than mine. Your correspondent, Mr. Mushet, attempts, by a chain of reasoning and calculation, to invalidate the fact, ascertained by the careful experiments of Messrs. Playfair and Bunsen, that no uncombined oxygen exists at a given distance above the tuyeres, and he arrives at the conclusion, that from 500 to 600 lbs. of free oxygen pass off at the top of the blast furnace. As Mr. Mushet does not give us his data, power of engine, rate of working, capacity of blowing cylinder, kind of blast (hot or cold), &c. &c., it is impossible to attempt to rectify his calculations; but surely the result ought to have awakened some suspicion of their correctness. Is it possible to conceive that a stream of oxygen is constantly passing through an enormous mass of combustibles, 44 or 50 feet in height (the height and diameter are not given), heated for a considerable portion of the altitude, to an intense white heat, without suffering any change? The miracles of the Book of Daniel do not exceed this: as a scientific fact, it would be one leading to the most novel and incalculable discoveries, and, in its applications, deserving the attention of even Dr. Reid himself. It is certainly rash to advance this crude result of an uncertain calculation to overthrow the accuracy of the interesting experiments of Messrs. Playfair and Bunsen; nor, indeed, does Mr. Mushet seem at all aware of the magnitude or importance of the position he advances,—so light (or, as it were, touch-and-go) is the attention he affords to it.

But there must be altogether an error in his figures—for he states the proportions in the blast furnaces to be—iron, 400; calcium, 74; aluminium, 37; silicon, 89—194 parts earthy base, to 400 parts of metallic iron, or 66 per cent. nearly for his working burden—a monstrous amount, more than double what we usually hear of in this country. The proportion of silicon also must surely be erroneous; and, as to the carbon, 324 parts to 400 of iron, where is the blast furnace which makes a ton of iron with but little more than three-fourths of a ton of carbon or coke? What say your iron-master readers to this? I know not whether we must quote of your correspondent that line—"Project ampullas et æquis pedalia verba." Certainly, by the well-known law of numerical combinations, the increase of scientific terms enhances the facility of composing scientific essays,—but whether it leads to new and definite ideas, is another question. I must confess I was disappointed, when I found all the sarmises respecting the æqui-oxide of aluminium, led to no other conclusion than that lime clay and sand make a cement when "mixed in certain definite proportions."

Coleford, Nov. 2.

THE THEORY OF VOLCANOES—CENTRAL HEAT.

Sir,—In his letter on this subject, published in the Mining Journal, of Saturday last, Mr. R. Mushet (of Coleford) attempts to prove that the earth has once been in a fluid state, from its shape being that of an oblate spheroid, exactly that which a fluid body would assume, when rotating on its axis. Now, Sir, if the earth was ever a fluid mass, is it likely that its component parts would ever have become stratified? and would it not have been a confused mass of mixed matter? He further informs us, that if a shaft was sunk towards the centre of the earth, the increase of heat would be found to be 10° for every quarter of a mile in depth; and that, therefore, the heat at 300 miles depth would be sufficient to liquify any earthy matter whatsoever. Now, my humble opinion is, that the heat in our deepest mines arises from a very different cause to central heat; and I believe if it was possible to find a hollow tree as high as our deepest pit has been sunk, and no admission for air, except the hole at the top, I believe the bottom of that tree would be as warm as the bottom of the pit. Alluding to volcanoes, he says, when the crust is thinnest they break out, and that this crust, if solid matter, is continually undergoing changes, slowly taking place, receiving additions in its thickness in some places, and getting thinner by fusion in others; we miners work beneath this crust, and I do not believe that any such effects have taken place, or it would have sorely deranged the strata of the coal measures—and I am convinced we have nothing to fear from fusion or crystallization. Are not the real feeders of volcanoes streams of uncombined hydrogen gas, formed in the middle strata of the earth beneath the granite? What kind of material may be beneath the granite, is not yet ascertained: my belief is, that there are fountains of this gas thrown abundantly into communication with the crater, which may then take fire from numerous causes; and this escape of quantities of the gas in a state of combustion, throws out with it stones, mud, sulphur, and whatever else the strata through which it passes is composed of, causing earthquakes and repeated volcanic eruptions. I have known volcanoes

in miniature, in coal-pits: a dreadful fire took place in a pit I was acquainted with—the timber caught fire, and that set fire to the body of the coal; four men lost their lives; and every few hours, as the gas accumulated, explosions ensued, which shook the earth a long way round; part of the pit was at length filled with fine sand, when, as no air could get in, the fire was at last smothered out. I have known more than one similar case; and that at Bilston, recorded in your last Number, where some men and boys were met by the flame, is one; and is, in fact, the result of a volcano on a small scale. Truly, Mr. Editor, we colliers live and work in volcanoes.—T. DEAN: Blaenau, Nov. 2.

IMPROVED METHOD OF WORKING THE SOUTH WALES ANTHRACITE.

Sir,—From notices in the Mining Journal, I see that parties in Sunderland are bestirring themselves to reward Dr. Clanny for his devotion to the cause of attaining a most desirable object—the prevention of explosions of gas in coal workings. I was about the counties of Northumberland and Durham at the time of some of the most destructive explosions, and took a great interest in the subject. When I came into the anthracite, or stone coal, district of South Wales, I expected to find the workings of such collieries quite free from inflammable gas, from the nature of the coal being nearly solid carbon without gas. I was, however, much surprised to find them very liable to explosions, and great difficulty in the ventilation. I was led to conclude, that the gas was chiefly carbonic oxide—a heavier gas, and, consequently, more difficult to remove by simple ventilation, than the light carburetted hydrogen of bituminous coal workings. I have suggested to some parties in this neighbourhood, who seem to have much difficulty in keeping their coal workings free from fire, sulphur, and other terms which they apply to it, that a very simple and effectual mode of getting it out of the workings would be to pump it into air-tight sacks, and carry it out of the pits; this has not been acted upon. There is always such a jealousy of interlopers, entertained by little-minded people placed in authority, which often prevents the adoption of valuable suggestions. A circumstance which occurred last week, induces me to address this to you. There is a sin of omission, as well as of commission; and I regard a man guilty of the former, who, imagining that he can suggest anything likely to be a benefit, were it but the saving of a single life, neglects the opportunity which you so freely afford through the medium of your liberally-conducted Journal. While upon this subject, I will mention a lamp, which I thought of long ago, not as a common working lamp, but merely for surveys, or to use upon extraordinary occasions, which is to surround the flame, with a double glass cylinder, having a space between to be kept full of water—the top and bottom being composed of wire gauze, to allow a current of air to pass through without communicating combustion to gas outside. By holding a polished surface on one side of such a lamp, a light might be thrown to a very great distance into the most dangerous atmosphere; and this, being pumped into sacks, as I propose, could be safely and completely removed without contaminating the atmosphere of the other parts of the workings, which might be in a good state. I give you my ideas in the briefest form possible, leaving them to practical miners to work out, if practicable. I read, with great satisfaction, about a fortnight ago, in the Mining Journal, some judicious and pertinent remarks of yours upon the application of chemistry and mineralogy to agriculture. I trust I shall be very shortly in a position to give you the details of a most interesting problem, which has occupied my attention for many years—the formation of ammonia from the elements of water, and the atmosphere through the agency of certain metallic bodies: this will fully confirm your remarks upon the important results to be expected from the union of these sciences.—SCRUTATOR: Pontyberem, Nov. 3.

SAFETY URN FOR MINE EXPLOSIONS.

Sir,—The communication of "L" (Battersen), in your last Number, is merely the *crambe repeta* of an invention of mine, for consuming the "fire damp" on the spot, without danger of explosion, and which I called a "safety urn." It is described in my work on "Flame and Safety Lamps."—J. MURRAY: Portland-place, Hull, Nov. 4.

VELOCITY OF AIR ENTERING IN STEAM-ENGINES BOILERS.

Sir,—Will you kindly allow me to inquire, if any of your ingenious correspondents can give any accurate information respecting an instrument, for the purpose of measuring the velocity, or quantity, of air, which enters the fire-place of the boiler of a steam-engine. Some notice of such an instrument appeared in the Mining Journal about 12 months since.—A. B. London, Nov. 6.

THE "GREAT BRITAIN"—MR. DE LA HAYE AND CAPT. AUSTIN.

Sir,—In the Mining Journal of last Saturday, I observed a letter from Mr. De la Haye, of Liverpool, recommending a cylinder of India rubber to be placed round the Great Britain, and inflated with air, which would render her sufficiently buoyant to float at the next rise of the tide. Now, as I do not think your correspondent would willingly infringe on any other person's invention, I will just inform him that such is the plan adopted for raising sunken vessels by Capt. Austin, for which he obtained a patent four or five years since, and which patent was taken up by the Universal Salvage Company—now, I believe, nearly defunct. Having been informed that some overtures had been made by Capt. Austin, for raising the Great Britain, I have waited with much interest for some information through the press, as to whether such had been taken into consideration by the directors, as I feel satisfied that, by Capt. Austin's process—that of adding flexible air vessels, until she was sufficiently buoyant—she might be got off without any farther damage than what she has already sustained. I should feel obliged for some information on the subject.—Q.: Austinfriars, November 4.

THE "GREAT BRITAIN"—THE CHART.

Sir,—It does not appear quite clear by whom the chart was published, which was used by Capt. Hosken, and to which the loss of the Great Britain is so much attributed, though it is somewhat implied, in your Mining Journal of the 24th—this, I think, should be fairly stated, that the saddle may be put upon the right horse. YOUR CONSTANT READER: Yarmouth, Oct. 27.

[The chart used by Capt. Hosken was a Liverpool publication, and, though sold by the authorised agent, had no authority on that account, as, according to Mr. Bates, the agent for the Admiralty, that body has never published any chart of the course.]

THE "GREAT BRITAIN"—ST. JOHN'S POINT.

Sir,—In Captain Claxton's letter to Mr. Bennett, giving a detail of the circumstances which preceded the unfortunate occurrence of the Great Britain, it is stated that, "on examining Captain Hosken's chart, which was bought by him when going out on his previous voyage in June, as the latest and most correct chart, there is found in it no mention whatever of a revolving or intermittent light, or any other light whatever, on St. John's Point; and again, 'this St. John's Light, of which he had never heard, and which is not named in his chart, is all at once seen,' &c. Now, Sir, I beg leave to remark, that, in the Yearly Journal of Trade, 1845, under the head of "Dangers of the Seas," p. 233, notice is given at large that a lighthouse has been erected on St. John's Point, County Down, "from which a light will be shown on the 1st of May, 1844, and which will thereafter be lighted every night from sunset to sunrise. The light to be an intermittent light. Mariners are cautioned to avoid the in-draught of Dundrum Bay;" so that, from Captain Hosken's own showing, had he consulted my Journal, 1845, the latest published, this sad disaster might in all probability have been avoided.—CHARLES POPP: Como Villa, Portishead.

IMPROVEMENTS IN SHIPBUILDING—THE WAVE LINE.

Sir,—It was with no small pleasure that I read, in your last Number, the "clever letter" of "Nauticus." To speak naively, I can neither make stem nor stern of it. He says—"The resistance before this part (the broadest part of a vessel immersed in the water) arises from three causes: the inertia of the fluid to be overcome, the friction from contact between it and the bows, and the cohesion of the water to the bows and sides of the vessel." Allow me to ask him, what is the difference between friction and cohesion? If he will examine minutely, he will find they are identically the same. And what, may I ask, has the friction of the water to the "side of the vessel" to do with the resistance "before this part?" He further says—"When a fluid and a solid meet, the effect of the impression is, at all times, perpendicular to the surface of the solid, in whatever direction they may approach each other; and the more acute the angle of incidence becomes, the less violent will be the contact." And again—"I shall be able to demonstrate that, with a given breadth, the amount of resist-

since from the inertia of the fluid will be the same, arrange the angle of incidence as you will." The one sentence is a contradiction of the other. Again—"As a vessel progresses through the water, the whole of the surrounding fluid is pressing upon her equally, and moves in a direction contrary to that of her course, simultaneously throughout her whole length—consequently, the wedge-like shape of bow is useless!" A most astounding consequence, indeed. I have long said, that "theory is that which cannot be reduced to practice," and many an instance have I seen of the truth of that saying, but none more glaring than the present. Take away the wedge-shaped bows of the steamers on the Thames, and what would they become? Why, equal to the fleet of the General Steam Navigation Company—a set of old tubs, the slowest in the country—of course, I except one or two of that company's wedge-shaped boats, which have been forced upon them. Let "Nauticus" try his hand at a tub, or a square box, and then add to either a wedge-shaped bow, and he will find that the wedge saves considerable power. Strange to say, practice has proved, that the more acute the angle of incidence, the greater has been the speed. It is generally supposed that, when a vessel moves through the water, the water is at rest as compared with the vessel, and that the water does not move as "Nauticus" states. He says—"In progressing, she will receive the water in the direction of the arrow H," which certainly is not "perpendicular to the surface of the solid." Again—"Now the angle of incidence will be such as to diminish the violence of the contact (query: the effect of inertia, or, rather, the inertia of the water?) in the proportion which the line E F bears to line C B." He ought to have said—"In the proportion of C B or C G to E F," and the resistance at any one point will be reduced in exactly the same ratio. Now, let us suppose a thousand "arrows, H," or points of contact, to be shot from the line E F, they will impinge on C B with a certain force; and the same thousand arrows (for you cannot shoot more from the line E F), will, of course, impinge with less force on the line C G—consequently, there is practically the greatest advantage in having very wedge-shaped bows! I sincerely hope that the entire practice of shipbuilding does not depend on the establishment of "Nauticus's" problem, whatever may be the case with theory; and I will now bring before his notice an instance of a very sharp-bowed, narrow vessel, which, by her practice, entirely refutes the two last paragraphs of his letter. I regret exceedingly that, at present, I cannot give the dimensions of this vessel; but I know that the Columbus, of London, which sails regularly between Liverpool and Pernambuco, is the sharpest bowed sailing-vessel I have seen in this or any other country, and it is well known in Liverpool that she is the fastest sailing vessel, I believe, belonging to this country. I have been at sea in her in a heavy gale of wind; she does not want buoyancy, she does not labour, and does not ship a great deal of water. She possesses, in fact, the very reverse of all the attributes of "Nauticus's" sharp-bowed vessels. Property on board of her is only half the usual time at sea, and, consequently, runs less risk.

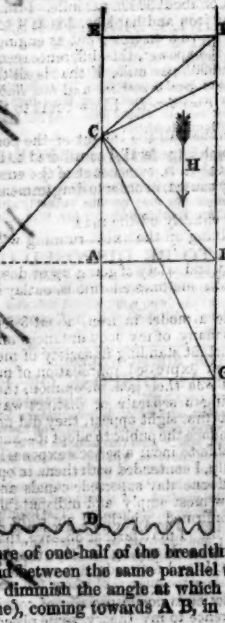
"Nauticus," from what he asserts, appears to suppose that, in vessels of a certain length, their masts are placed at an invariable distance from the bow, no matter whether they be sharp or bluff. He says, that "the sails urging them forward, act across the broadest part of the ship as a fulcrum, depressing the bows in the water." This is not so; the masts are placed proportionally to the buoyancy of the vessel, and the fulcrum, if I may call it so, of vibration, is in the line which divides the fore from the after part of the vessel. By this I mean, that the part in front of the fulcrum will displace the same quantity of water as the after-part; and this line is seldom or never in the broadest part of the vessel. I speak from experience, that a sharp vessel is faster and drier than a bluff vessel, and theory cannot prove the reverse. Has "Nauticus" ever been at sea? I should think not, until he wrote this letter.—R. S. N.: Gateshead, Oct. 27.

IMPROVEMENTS IN SHIPBUILDING—THE WAVE LINE.

Sir,—Instead of proceeding with the subject of shipbuilding, as I proposed last week, I will thank you to insert the following reply to a letter from some one at Gateshead, under the signature of "R. S. N.," which appeared in the Mechanics Magazine of the 31st ultimo. The writer commences by stating, that he "can make neither stem nor stern" of the extract you made, in a previous Number, from one of my letters in the Mining Journal. I can very well believe that he cannot do so, from the very great capability of reasoning, and the peculiar logic he displays throughout his letter. Nothing that he has advanced amounts to matter requiring argument to refute—his idea of friction and cohesion being identical, is quite sufficient to stamp his letter with absurdity; what analogy he has discovered between "rubbing" and "sticking," it would be curious to know. However, to be more serious, "R. S. N.," whoever he may be, is evidently quite innocent of the slightest idea of the operation of the law attending the contact between a fluid and a solid, by which "the effect of the impression is, at all times, perpendicular to the surface of the solid,"—and the more acute the angle of incidence becomes, the less violent will be the contact: "he is consequently unable to comprehend how, with a given breadth, the amount of resistance, from the inertia of the fluid, will be the same, arrange the angle of incidence as you will." Take the length of the line indicating the greatest breadth of a vessel, and narrow her bows, so as to throw this part far aft,—although the angle at which the water will impinge on the bow, will become acute, and so diminish the effect of the impression on any one square inch of surface—yet this effect is not gained by placing a line of equal length to the breadth of the vessel at the angle proposed; but the breadth remaining the same, and the direction of the course being at right angles with it, it requires a line longer than that measuring the breadth to describe between the same parallels an acute angle with the line of the vessel's course—therefore, the quantity of square inches of surface are increased; and the pressure of water being equal on every square inch of surface, it follows that the diminished effect of the impression per square inch is acting on precisely so many more square inches than are contained in the area of the broadest part—therefore, the real value of the resistance is the same. I will, however, for the satisfaction of your readers, and the information of "R. S. N.," demonstrate why the resistance remains the same.

When a vessel progresses through the water, her course will be at right angles, with a transverse line drawn across her broadest part; should this broadest part be at the very extremity forward, the water will meet it at right angles,—and the amount of resistance on each square inch of surface will be precisely as the violence of the contact; but if this broadest part is removed further aft, the breadth of the vessel remaining the same, the length of the line from the stem to one extremity of this broadest part will increase as it recedes aft—thus increasing the actual number of square inches of surface on which the water has to impinge, and the pressure will be simultaneous throughout the whole quantity, not commencing at the point, and insidiously making way like a wedge into a solid. This

line C B, between the stem and broadest part (see fig.), becomes the hypotenuse of a right angled triangle, of which the line A B, one-half of the breadth of the vessel, is the base—the perpendicular being that part of the midship longitudinal section intersected at A to the stem C. The hypotenuse and perpendicular must be increased in length to diminish the angle formed by them at C, which angle is always equal to the angle of incidence, at which a fluid would strike the hypotenuse, if approaching in a line parallel to the perpendicular, "because (Euclid, prop. 29), if a straight line fall upon two parallel straight lines, it makes the alternate angles equal to one another." Therefore, the base A B being constant, the angle of incidence, and the hypotenuse C B, must always have a proportionate ratio of increase and decrease towards each other; consequently, the number of square inches of surface on which the water has to impinge between the same parallels, will increase as the angle of incidence diminishes. Again, taking the same figure, the water is received between the parallel lines E A and F B, in the direction of the arrow H; also, parallel to these lines, and at right angles to the line A B, the measure of one-half of the breadth of the vessel. E F being parallel to A B, and between the same parallel straight lines must be equal to A B. Now, to diminish the angle at which water will be received (on another straight line), coming towards A B, in the direction of arrow H, parallel to E A



and F B, it will be necessary to draw a line not at right angles with those parallel lines—consequently, as the alternate angles increase, at which it will fall upon those parallel straight lines, the length of the line between them must increase also, as shown at C B or C G; whilst E F, the value of the resistance, remains the same. If it were possible, let E F be equal to C B; but it has been shown, that E F is equal to A B—therefore, A B must be equal to C B also; the less equal to the greater, which is impossible, Q. E. D. Thus, the amount of resistance from the inertia of the fluid will be the same, with a given breadth, arrange the angle of incidence as you will. As the vessel moves, the effect of the impression on each square inch will be equal—therefore, the idea of the 1000 arrows shot from line E F is absurd; because, suppose one square inch to represent an arrow, the number required to cover line C B or C G, would exceed this thousand dispatched from E F (as proposed by "R. S. N."), in an exact ratio to the decrease of the force of contact—the fact being that the line E F is the measure of the resistance, not of the quantity of water impinging on C B. His remarks about tubs and square boxes, I will pass over, merely asking him, if he ever saw a Dutch galliot at sea in a gale of wind, and observed how she rode the water "like a thing of life?"

His account of the *Columbus*, of London, does not at all bear on the question—she may have great length, or other qualities, which obviate the defect of the narrow bows; "she may prove to be the exception to the rule." Next, "R. S. N." says, "the fulcrum, if he may so call it, of vibration, is in the line which divides the fore from the after-part of the vessel; "by this I mean that the part in the front of the fulcrum will displace the same quantity of water as the after-part." This is true, as regards the gravitation of the vessel,—but not so with reference to the resistance between a fluid and solid, when coming into contact, on account of the law, explained above—that of the pressure being "perpendicular to the surface of the solid;" wherefore, to whichever end the narrowing of the vessel takes place, the effect of the pressure will incline towards the opposite end, in a degree proportioned to the narrowing; and if great preponderance of buoyancy is not given to the fore end, by making it displace more water than the after end, the energy of the canvas would run her bows under, in a manner similar to that in which vessels have been sent down stern first, when taken aback by a sudden squall.

From the remark "R. S. N." makes about the arrow in my figure, indicating the direction the water will approach to the bow,—and, in fact, measuring the angle of incidence,—it is quite clear that he does not understand what is meant by the term, "perpendicular to the surface of the solid." Pope justly says—

"A little learning is a dangerous thing—
Drink deep, or taste not, the phrean spring."

I will make a direct reply to the question, "Has ever 'Nauticus' been at sea?" by stating, that I went afloat at 14 years of age, and have commanded vessels for years, both crossing the Atlantic, visiting the Arctic regions, and many other parts of the globe.—NAUTICUS: *London, Nov. 4.*

ON THE ECONOMICAL CONSTRUCTION AND WORKING OF RAILWAYS.

SIR,—In the early part of 1809, I entered a caveat at the Patent-office for an "improved railway, and for carriages to be used thereon;" but such was the state of public opinion at that time, that I could get no one willing to assist in procuring a patent—consequently, despairing of success, I let the affair drop. About two or three years after this, happening to be at Leeds, and learning that a Mr. Brenkensop, an engineer to a colliery in the neighbourhood, had patented a railway, with a rack and pinion, I was induced to inspect it, and was surprised to find it, as I deemed, a very bungling contrivance—viz.: by putting the rack, or tooth, on the outside of the cast rail, which, of course, made a very imperfect one-sided strain upon the rail, and, as might be supposed would be the case, soon made the short 3-feet rails rickety—the pinion, or tooth-wheel, which worked in the rack, was of small dimension, consequently, the speed did not exceed about three to four miles per hour. Being at that time otherwise engaged, I took no further interest in the matter, until the opening of the Liverpool and Manchester Railway, where the plan of obtaining the fulcrum by friction on the rail was adopted. I gave up all thoughts of the rack and pinion plan, thinking that it was quite superseded by the new plan of adhesion, or friction, on the rail; nevertheless, I published some remarks in the *Freeman's Journal*, Dublin, about four years ago, wherein I endeavoured to show how manual power might be successfully employed on railways, either with a rack, as I originally proposed, or without. The original plan was somewhat as follows:—I proposed to lay down three longitudinal timber bearers, framed firmly together upon cross or transverse timbers, about 6 feet apart, so as to produce a complete system of framework—the two outer ones, of course, for the wheels of the carriages. On the middle one, I proposed to affix firmly a cast or wrought-iron rack, and a flange on each side of the pinion or tooth-wheel, so as to guide the carriage, as well as to prevent the possibility of the carriages getting entirely off the road. I proposed the wheels to run on the bare timber—thereby saving the whole cost of iron rails; the wheels I intended to revolve on the axles, which would enable the engines and carriages to run round very sharp curves, without the least danger of running off; for, supposing the driving-tooth wheel thrown out of gear, it would be stopped by the wheel from getting entirely off the road. I proposed that the driving tooth-wheel should work easily on the rack, allowing as much play as might be deemed advisable, and of such dimensions as might be deemed most desirable for passenger and merchandise traffic—of course, for passenger traffic, the wheel might be larger than for goods; and, therefore, suppose for the sake of speed, the wheel to be 8 feet diameter, and, by the aid of steam, the revolutions to be 100 times in a minute, that would produce a speed of nearly 30 miles per hour. Now, if the wheels run on bare hard timber—such as beech, &c.—it is clear, as I have before observed, that the whole of the expense of iron rails would be saved. Suppose a double line of rails of 90 lbs. to the yard, which, with screws, &c., would be about 300 tons per mile, which, at 12l. per ton, would be about 3600l. per mile, against which I have to reckon the cost of the cast-iron rack as the only drawback—as I contend, in consequence of the reduced weight of the engines, the same amount of timber and labour of constructing the framework of a railway, similar to the Great Western double line, would be equal to the proposed three lines—suppose the two cast racks to be about 140 tons per mile, at 7l. per ton, would be about 1000l.—so that, it would appear, that this plan, independent of other advantages, would save about 2600l. per mile on a double line of way, or half that sum on a single one: thus much for the cost of construction. If, however, it should be deemed better to lay down a flat bar of iron—say, about 4 inches by ½ inch, for the wheels to run upon—then the gross saving would be about one-fifth less, or about 3000l. per mile. I think it is estimated that the difference of traction on iron and hard wood is as 4 to 5—viz.: the power to move 4 on wood, would move 5 on iron; but as engines, especially with passengers, seldom exert half their power, this difference seems hardly to justify an extra outlay of 500l. or 600l. per mile, if that is all the advantage to be obtained, especially when the superior motion, and less liability of injury to the engine and carriages are considered. I now come to the advantages which appear to be obvious.

1. That it would not require the engines to be half the weight of the ponderous rail destroying engines now in use, which is generally considered to be the principal cause of straining and injuring the rails, on account of the enormous weight, and the friction thereby needfully caused, in order to drag immense trains or heavy loads.
2. The almost utter impossibility of getting entirely off the road.
3. The facility: owing to the wheels, revolving on the axles, running with perfect safety on very sharp curves.
4. Though last, perhaps not least, the facility and safety of going up or down steep incline planes—thereby saving large, and sometimes enormous, outlay in cuttings, tunnels, &c.

At the time I mention—viz.: 1809—I made a model in iron, about 3 feet long and 18 inches wide, which I exhibited to many of my acquaintances and friends, many of whom were persons of important standing in society of mechanical and scientific attainments, all of whom expressed approbation of my plan as possessing considerable merit; yet it was their general opinion, that the cost would be so great, the road requiring a separate or distinct way, &c., &c., that, however feasible it might at first sight appear, they did not think there would be sufficient advantages to induce the public to adopt it—and, therefore, they thought it would not be advisable to incur a serious expense in the attempt; but at that time, and subsequently, I contended with them, in opposition to their opinion, that railways would one day supersede canals and stage-coaches, which time and events has now most amply and indisputably proved—thus, as it respects railways, I am confirmed: whether I am right as to my theory of working, time will also determine. I may further observe, that on this model I placed several hundred weight, and, setting on the top, by means of a handle, I propelled myself backwards and forwards at a considerable speed with one finger.

As the employment of the labouring population is now especially of considerable importance, allow me to offer, in reference to my theory, some observation on mechanical power. Mechanical power is compounded of the weight or expansive force of a moving body multiplied into its velocity; the power of a body, which weighs 40 lbs., and moves with a velocity of 50 feet in a second,

is the same as that which weighs 80 lbs., and moves with a velocity of 25 feet in a second, for the product of the respective weights and velocity are the same.
 $40 \times 50 = 2000.$ $80 \times 25 = 2000.$

Power is obtained from animal exertion, from the impulsive and gravitating properties of fluids, and from expansive and contractile properties of steam and gases. The following table is extracted from Tredgold's excellent work on railways:—

Velocity in miles per hour.	Duration of the day's work.	Useful effect of one horse working one day, in tons drawn one mile.
Miles.	Hours.	Canal. Railway. Turnpike-road.
2½	11½	243 115 14
3	8	243 92 12
3½	5-9-10	153 82 10
4	4	162 72 9
5	2-9-10	52 57 7-2
6	2	30 48 6
7	1½	19 36 5-1
8	1½	12-8 36 4-5
9	1-1-10	9 32 4
10	1	6-6 28-8 3-6

By this table it appears that, at a speed of five miles per hour, the power to convey on water and on the rail is about equal—both being eight times greater than the turnpike-road; but at 10 miles per hour, the rail has an advantage over the canal, and about eight times over the turnpike-road; and that, therefore, on a rail, one horse is equal to eight on a turnpike-road. Two men, of ordinary strength, can turn a winch with a force of 70 lbs., with a velocity of 3½ feet per second, for 10 hours a day. A man, in towing a boat, can exert about 80 lbs.—while a horse will accomplish seven or eight times more, though a horse cannot carry up a hill more than three times what a man can do; on an average, therefore, six men may be considered, especially at a winch, equal to one horse. It appears, from the foregoing table, that one horse can draw about four tons seven miles on a railway in three-quarters of an hour, which is presumed to be as much as should be required of a horse to do in one day; though I have no doubt but that, on an average, on a perfectly level road, one horse would draw, by proper management, at least five tons 10 or 12 miles per day, at the rate of 10 to 12 miles per hour.

Having stated thus much, allow me to make some observations on manual, as compared with horse power. Let us suppose that six men are equal to one horse, and can exert a power equal to 240 lbs., as before stated—though I believe their united efforts may be fairly considered equal to 240 lbs. to 250 lbs.—and, therefore, I will assume 240 lbs.—now, suppose, on a good level road, the friction to be 8 lbs. to the ton on iron rails, or 10 lbs. per ton on hard wood, then the power of six men will move a body weighing 30 tons, which I think no one, practically acquainted with railways, will dispute, as I have seen an ordinary man move a carriage, weighing from six to seven tons, at a good walking pace of at least three miles per hour. Now, let us suppose a carriage, or machine, made so as to have a driving toothed-wheel—of (say) 6 feet diameter—with a handle, to perform a circle of 8 feet, which, being one-half of the diameter of the large wheel, 240 lbs. applied to the handle, would give 120 lbs. to the outer surface of the large wheel, which would be equal to the traction, or friction, of 15 tons of the handle—made to revolve 25 times in a minute, would be a velocity of about 3½ ft. in a second, and the large wheel being 6 yards in circumference, the carriage, or machine, would be propelled at about five miles per hour, moving a load of 15 tons; then, according to Tredgold's table, 7½ tons could be moved by the same power, 10 miles per hour; about 4 tons, 20 miles per hour; and at least 3 tons, 25 miles per hour, supposing no loss of power from the multiplying wheel, needful to obtain high speed, but which would not be required, if steam was employed as the moving power. As respects the friction occasioned by the toothed-wheel and rack for the speed of five miles per hour, there could not be much loss of power in the first movement; and if, by a little extra exertion, the handle is turned—say, 36 times in a minute—the speed would be increased to nearly eight miles per hour, without any multiplying pinion being used; and if moved by steam 100 times in a minute, a speed of nearly 20 miles per hour would be obtained.

Now, supposing practice nearly to agree with the foregoing theory, and that eight men could, by exerting their power, at the given rate of 35 lbs. each—or, say, 240 lbs. for six men—then the power of the eight would be 320 lbs.; maintain the speed of 3½ feet per second for 10 hours a day, it would then seem that the eight men could, on a perfectly level iron rail, move upwards of four tons at a speed of 25 miles per hour, including, of course, their own weight 250 miles in one day!! It must be observed, that the men do not suffer by carrying their own bodies, like in walking—their own weight only occasioning a friction with the general load, less than half a pound each.

Starting as this may sound in the ears of those unacquainted with mechanical inventions, it is not so preposterous as some ignorant thereof may be led to imagine. I know a party, a coach-builder, who offered a considerable bet that he would undertake a journey from Bristol to London (120 miles), on a carriage he had constructed, in the day, on the common turnpike-road (which, according to his statement, there is good reason to think he could do), which, considering the undulation of the road, would be a greater feat than the above, because himself and the carriage I should think would not be less than 3 cwt.; and as there is a difference of eight times in favour of the rail, 3 cwt. would be equal to 24 cwt., which, multiplied by eight, the number of men proposed to be employed, would be equal to nearly 10 tons. Let us, however, take it for granted, that a load of three tons may, by eight men, be propelled (say) 25 miles in one hour—and imagine this load to include the carriage, the workmen, and 20 passengers, and they make the journey (say) six times a day—this would be equal to 20 persons conveyed 150 miles at the cost of the labour of eight men, which, in Ireland, may be readily obtained at 1s. each, or 8s.—so that the cost of power to convey a person 150 miles, would be under 6d.

Now, let us again imagine a short branch railway, made across some of the extensive turf lands in Ireland—say, 12 miles in length—to be constructed in the manner I have described, the scantling of the three timber racks to be 12 inches by 6 inches, fixed on cross or transverse timber at 6 feet apart, this would require about 6 cubic feet of timber every yard—which, including labour for laying down complete, might be accomplished at 2s. 6d. per foot, or 15s. per yard, or 1320l. per mile. The cost of iron rack and guide, as proposed, about 70 tons, at 7l. per ton, fixed, would be 490l., making together about 1800l. per mile—so that what is termed the upper works, would be under 2000l. per mile, even including small timber bridges, over drains, &c.; so that, with a due regard to economy, railways in such districts may be constructed, including every probable expense, carriages, &c., &c., at an average under 3000l. per mile for a single line, with proper and needful sidings, &c., &c. Then, let us imagine that a speed of 10 or 12 miles per hour may be great enough for such a railway—according to the foregoing, a load of six tons at least, may, with eight men, be propelled at that speed, which I apprehend would be equal to the weight of the carriages, workmen, and at least 40 passengers—and that the same men perform the journey, 12 miles, every two hours, or six times a day—and suppose they convey an average of 30 passengers each time, this would be equal to 30 passengers conveyed 72 miles for 8s.—so that the power would cost about 3d. each for the 72 miles, or 4d. for 12 miles, and, therefore, passengers might be conveyed at that speed at a charge of 4d. per mile, and afford a large remuneration. With respect to merchandise, suppose the eight men could propel (say) only 12 tons, at five miles per hour, which is certainly fast enough for any agricultural produce, and suppose they perform the journey every three hours, or four times a day, this would be equal to 48 tons conveyed 12 miles for 2d. per ton, in which case agricultural produce might be very profitably carried at 6d. per ton, or 4d. per ton per mile. It, therefore, appears to me, that directors of trunk railways permit themselves to allow a needless expense in constructing branches through thinly-populated districts, or to small towns, &c., at the same proportionate expense as the trunk line has cost, especially when that branch is intended to be worked by horse-power, similar to the short branch from the Bristol and Exeter to Weston Super-Mare, where two carriages, and sometimes a truck, weighing together from twelve to fifteen tons, to accommodate an average of less than that number of passengers; whereas, if a light carriage of (say) two to three tons was used, then one horse would effect the conveyance of all the traffic, as well as the three horses now employed, and thus save 7l. to 8l. per week; surely, it is a great sacrifice of power to move a dead load of at least one ton to each person. On the Edinburgh and Dalkeith Railway, worked by horses, one horse draws with ease, at 10 miles per hour, 40 passengers, at a charge of less than 1d. per mile first-class, on which line from 4,000,000 to 5,000,000 of passengers have been conveyed without any serious or fatal accident either to passenger, man, or horse.

I will now bring my observations to a close, by allusion to a rather interesting matter of history. About the year 1820, a Mr. Francis Fortune, who then had an office in or near Lombard-street, issued a very long prospectus, accompanied with a map (a copy of which I got accidentally possessed of), wherein was laid down trunk lines to most of the important parts of the kingdom—to effect which he proposed that the Government should advance, at a stipulated interest, the required capital, leaving branches thereto to be effected by private companies. Among the numerous arguments in favour of the project, he expressed himself to this effect—"That such is the improvement now making in the application of steam, it is reasonable to expect, that ere long the mails may be conveyed by that means on railways, at a speed of 12 miles per hour!! yet this individual (who was the first projector of the Great Western Railway) was denounced as a mere schemer and bubble projector. I have, however, lived long enough to see my ideas of the great advantage of railways completely established; and at present I can see no serious objection to my theory of construction, combination, and working, as being more economical and safe, and consequently more beneficial and desirable for the public, than those now in use.

I do not know if a plan, similar to what I have proposed, has ever been fairly tried; there may, possibly, be some formidable objections, of which I am not aware, which the obvious simplicity of the plan almost induces me to suspect; though, I again repeat, I cannot discover any serious objection to the theory at least; and in order to afford an opportunity to those who may be willing or able to do so, I make this public communication.

PHILANTHROPY.

3, Belvidere Road, Nov. 5.

WESTERN GAS COMPANY.

In consequence of a requisition, numerously signed by the freeholders, leaseholders, and inhabitant householders of Kensal Green, and its vicinity, to the directors of the above company, to convene, as early as possible, a public meeting, for the purpose of ascertaining their real opinions and wishes respecting the erection of the gas-works in that neighbourhood, the meeting was held on Wednesday last, the 4th inst., at the Plough Inn, Kensal Green, and was most numerously attended.

G. L. TAYLOR, Esq. (the chairman of the board of directors), in the chair. The CHAIRMAN, having stated the objects of the meeting, read the requisition, calling upon them to convene the meeting, and the advertisement, and observed, that, as it was obvious their opponents at the former meeting did not represent the wishes of the majority of the inhabitants, they should now be most happy to hear the sentiments of any gentlemen present; and he assured the meeting that the honest conviction of the directors was, that, instead of an injury, the erection of the works would prove a blessing to the neighbourhood, give occupation to the labouring population, produce a far more brilliant and purer gas than any at present in use, and that without being the slightest nuisance, or filling the atmosphere with deleterious products.

Mr. MAXWELL, as the party who moved the amendment at the former meeting, alluded to the unfair manner in which the proceedings were conducted by the Rev. A. G. Pemberton, who presided, and his colleagues; the interruptions which were made to every speaker who did not oppose the erection of the works, and the premature nature of the objections made to a nuisance before it was in existence. He said, the directors of the company were so satisfied that, by the plan which they would adopt for the manufacture of their gas, no deleterious gases, such as sulphuretted hydrogen, carbonic acid, &c., would be thrown into the atmosphere—that they had jeopardised their capital for the carrying out the objects of the company, which, if proved a nuisance, could, by the existing laws—viz.: by a bill of indictment—be put a stop to, and the capital sunk be entirely lost. He read the amendment, which was so strongly opposed by the rev. chairman, and asked, if there was any thing in it to prevent a fair and open investigation of the question? No; the object was obvious; it was not the public good, but it arose from factious motives and sordid interest; and, like the shepherd in the fable, who cried "Wolf! wolf!" when there was no wolf, the rev. gentleman had cried "Nuisance! nuisance!" before any nuisance was in existence; and he trusted the same cold contempt would be exhibited towards them, as was to the shepherd when the wolf came in reality. Their ignorance blinded them to the importance of the progress of science, and their bigotry and selfishness instigated them to bar, to all the extent of their pigmy strength, the advance of civilization. He then moved the first resolution, founded on his amendment at the former meeting, for which see our advertising columns.

Mr. BROWN said, that he represented a class more immediately concerned than any other of the inhabitants, whose almost very existence was at stake, by the formation of the stated nuisance—he alluded to the laundresses, a great number of whom resided and carried on their business in the neighbourhood; and if it could be proved to his satisfaction, that no injury would be inflicted on them by the deposit of soot, and unconsumed carbon floating in the atmosphere, he should not only be willing to give his support, but would, with pleasure, second the resolution.—The CHAIRMAN said, that himself and his colleagues had completely satisfied themselves on the subject, or they would not have risked their capital, and placed themselves in the position they held; he then read several affidavits made in the Court of Chancery, one by an eminent physician to one of the London hospitals, and who was a first-rate chemist; and others from several scientific men and managers of gas-works, in which it was stated, that gas-works in general were by no means prejudicial to health, or the growth of vegetation; but, on the contrary, that the workmen generally enjoyed better health than the generality of labourers, and that the most delicate flowers were cultivated within the inclosures of many of our country gas-works; and he stated, that it was the intention to test the effects to the utmost, by planting the most delicate flowers which grew in England, around their grounds; he would refer Mr. Brown to Mr. Palmer (the company's engineer) for any further information.

Mr. PALMER then rose, and said that, having anticipated some inquiries would be made of him as to the nuisances, so dreaded by their opponents, he had prepared a list of the general causes of the nuisances from gas-works, and the remedial measures to be adopted: they were as follows:—1. The using coal tar as an auxiliary fuel, which gives out volumes of crude dense smoke from the chimney. Remedy—No tar will be used as fuel.—2. The unconsumed carbon evolved during the charging and withdrawing the retorts. Remedy—The charges will be made with scoops, each holding a charge, which is done in much less time than by shovels; and, as coke is used for heating the retorts, very little smoke escapes from the furnace doors, when open.—3. Cooling the ignited coke with impure liquids, such as the waste ammoniacal liquor, &c. Remedy—The employment of pure water.—4. Raking the refuse matter from the evaporating pans into the ash-pit, and which falling on the ignited coke, fills the air with ammoniacal gases. Remedy—Avoiding such practice.—5. Collecting the refuse matter in vessels not hermetically sealed. Remedy—The use of perfectly insulated and secure vessels.—6. Storing coal tar in large quantities in insecure tanks. Remedy—As the naphtha from the proposed works will be of a very superior description, the tar will always find a ready sale, and not be allowed to accumulate; and what does remain on the works will be stored in secure vessels.—7. The vapours given out from the wet lime purifiers, consisting principally of sulphuretted hydrogen and ammonia, forming nine-tenths of the nuisances arising from gas-works. Remedy—The use of dry lime in purifying.—8. Using the refuse lime and ammoniacal liquor in the evaporating pans, beneath the fire-bars. Remedy—Using pure water instead.—9. (And lastly) The careless manner in which the tar, ammoniacal liquor, and other products of the works, are thrown about and allowed to run into the sewers; thus tainting the air to a great distance. Remedy—None to be allowed to enter the drains. These he considered all the nuisances in any gas-works—in those of modern construction many are avoided, and in the works proposed they would be done away with altogether.

Mr. BROWN expressed himself perfectly satisfied, and asked if there would be any advantage in the supply of coke?—Mr. PALMER replied, that the coke from Kannel coal was superior for many purposes. Coke from Newcastle coal emitted some smoke, but this gave none at all, and would be supplied at a less price.—Mr. JENKINS, a freeholder, inquired if these particular works had been tried elsewhere?—Mr. PALMER explained, that he had experimented on them for 2½ years at the South Metropolitan Gas-Works; and the gentlemen, who had established the company, had invested largely in the undertaking, satisfied of the results.—Mr. JENKINS said he considered the whole premature—that the works would be a perfect nuisance, and a serious injury to the neighbourhood; and he talked about an injunction.—A voice in the room: "Where's your stagnant pool? I was obliged to sell my horse and cart, because I could not drive through it!"—Mr. ABERCROMBIE, in a humorous speech, supported the company. He said he had formerly lived in a country town, in the midst of manufactories, where there was at times so much smoke, that when you went out in the morning you came home with a black face; but he also noticed, that on those occasions there was plenty of money stirring; but, when a clean face was preserved, there was little to be got. These gas-works would bring employment and trade to the neighbourhood; and he advised them not to be alarmed about tarnishing the gilt-mouldings of their opponents, but to look after the gold on their own gingerbread. As a medical man, he would say the works would be anything but prejudicial to health.

Mr. TOZER, who said he was a working man, and lived in Kensal-New-Town, and that he had heard nothing satisfactory from the engineer to convince him the works would not be a nuisance, lamented that his health was in jeopardy; and, during a doleful speech, which kept the meeting in a roar of laughter for several minutes, there was cries of—"Bite him, Towzer!" "Go it, Towzer!" &c.

Mr. BEARD said, he had left Glasgow, where he had been superintending the erection of gas-works, on one side of which was the Infirmary, and on the other the Fever Hospital, with an extensive bleaching ground behind, and they produced not the slightest ill effects to either the recovery of the patients, or the delicate operation of bleaching.

Mr. LANGHAM, of St. Marylebone, wished to make a few observations, as he thought the erection of the works would be a great benefit to Kensal-New-Town and the neighbourhood: he had two cottages there, one of which had been empty for a considerable time, and, on commencing the building the walls of the gas works, he had let it for more rent than he had ever before thought of asking; he was quite satisfied with Mr. Palmer's explanation for the prevention of any nuisance.

Mr. ROWBOTTOM asked, if it was true, as stated at the former meeting, that Alderman Farebrother had seceded from the company?

The CHAIRMAN said, that the party making that statement had not the slightest authority for it—that it was not true—that the alderman remained in the direction as from the commencement, and a most efficient member he was of that body.

The resolutions, which will be found in another column, were then passed without a single dissentient—the chairman being most careful, after the show of hands for each, to give ample time for any to be held up to the contrary, but none appeared.—On moving the thanks of the meeting to the chairman, Mr. MAXWELL drew attention to the marked contrast between the course pursued at this meeting, where all were allowed a fair hearing, and the former one, where the rev. chairman would allow no one to be heard, unless opposed to the company; and observed, that the warmest thanks were due to Mr. Taylor, for his impartial conduct that day.—The motion was carried with acclamation, and a person present having proposed three cheers for truth, and the Western Gas Company, it was given, and repeated with right good will—again echoed by the children of the village, who had assembled outside the Inn; and the whole proceedings were satisfactorily expressive of the wishes and opinions of the great majority of the inhabitants, and the triumph obtained by the advocates of the march of science and civilisation, over bigotry, ignorance, and intolerance.

Mining Correspondence.

ENGLISH MINES.

BARRISTOWN.—The lode in the 24 fm. level end, west of engine-shaft, is 2 ft. wide, composed of carbonate of iron, with a slight mixture of lead; we have commenced a cross-cut to the lode in the 28 fm. level, south of flat-rod shaft. The 18 fm. level end is improved since my last, producing over 1 ton per fm. The 12 fm. level end, west of flat-rod shaft, is producing over 1 ton per fm. The 18 fm. level end east is producing 3 ton per fm. The western winze, sinking under the 12 fm. level, is producing about 1 ton per fm. The adit end east produces some good stones of lead, but nothing regular; lode large, principally gossan. Nothing new at Clon Mines since my last. We have been disappointed in getting a vessel this week to take the lead; however, there is one in Waterford discharging at present that I hope to get—vessels do not like changing ports to load this season.—T. ANGOVE: Oct. 30.

BEDFORD UNITED.—At Wheal Marquis, the lode in the 80 fm. level east is 2 ft. wide, producing a little saving work, very promising. The lode in the 70 fm. level east is 2 ft. wide, saving work; the lode in the bottom of this level is 2 ft. wide, and worth about 127 per fm.; in the rise in this level, the lode is 2 1/2 ft. wide, and worth 107 per fm. In the winze, in the 58 fm. level, the lode is 2 ft. wide, and worth 87 per fm. At Wheal Tavitock, the lode in Phillips's engine-shaft (now again suspended) is about 2 ft. wide, producing good stones of ore in places, altogether a strong kindly lode. The lode in the 47 fm. level east is 1 1/2 ft. wide; and in this level west 16 in. wide, composed of spar, mundie, and stones of ore. In the 35 fm. level east, the lode is without alteration; there has been nothing done in the south engine-shaft for the past fortnight, the pumpmen having been employed fixing plunger lift, cutting plat, &c. In the adit level east, the lode is much the same as when last reported. We weighed at Morwelham on Friday last, August ores 92 tons 8 cwt., and sampled September ores computed at 93 tons.—JAMES PHILLIPS: Nov. 3.

CALLINGTON.—Johnson's engine-shaft is down 13 fms. 4 ft. 6 in., below the 112 fm. level; the ground being very hard, we consider it advisable to commence cross-cutting, for a 125 fm. level. Johnson's lode, in the 112 fm. level east, is producing stones of tin, although not so promising a character as before, previous to our meeting with the last branch of the lead lode; we have put the men to drive west; in the north end, the lode is 9 in. wide, producing silver-lead ore; the winze sinking upon this level we expect to hole, within the next fortnight; we shall then feel the benefit of better ventilation, and have the ground laid open to work on tributes. In the 100 fm. level the lode looks promising, is rather small, producing good work; the back will work at an average tribute; the south end is also opening tribute ground. In the 90 fm. level north, no lode taken down; in the south end, the lode is disordered by a small cross-course. In the 80 fm. level, the lode is producing silver-lead ore. At the north mine, the 100 fm. level is being driven in both directions on a very promising lode, producing silver-lead ore—the ground is of a decomposing and congeal character. Another branch has been met with which is likely soon to form a junction with the former part; the price for driving north is 40s. per fm.—south, 50s. In the 90 fm. level, driving north, the lode is 1 ft. big, composed of fluor spar, intermixed with clay slate, producing silver-lead ore. In the south level, I am happy to say, the ground is much improved; the back we are now opening will work at a low figure. In the 80 fm. level the ground is improved, with a good branch of silver-lead ore—the north end looks well, being driven at 6s. in 12, on the value of the lead. The tribute department looks well, and bids fair for breaking a good quantity of ore this month. We have this day sampled 105 tons of ore of good quality; we have also a small parcel of copper ore at surface, which the tributers will now commence dressing; when sampled and assayed, the value shall be made known.—J. T. PHILLIPS: Nov. 2.

COOK'S KITCHEN.—At Chapple's lode, we have been engaged in cutting a plat at the engine-shaft, at the 180 fm. level, and have now commenced sinking under this level. The 180 fm. level west, the part of the lode on which we are driving, is 1 ft. wide, and worth about 157 per fm.; but the whole lode is much more valuable than this, being, we suppose, about 4 fms. wide; the lode gone down in the bottom of this level is an exceedingly fine one, and leads us to hope for favourable results in the 190 fm. level. The winze sinking below the 170 fm. level is now down about 7 fms., and we expect to communicate it with the 180 fm. level at the latter part of the month, when the tin ground between the two levels will be completely laid open for being worked to advantage, and will set at a low tribute. In the 170 fm. level end west we have only just got clear of the little cross-course, and, therefore, cannot say much of the appearance or value of the lode, it not having yet recovered from the disorder produced by the cross-course. The winze sinking under the 160 fm. level west, which is down about 5 fms. below the level, the part of the lode on which we are sinking, is 4 ft. wide, and worth from 121 to 157 per fm.; but the whole lode is very much larger, and proportionally more valuable; we expect to hole the winze to the 170 fm. level at about the middle of next month, when we shall be enabled to set to work, on tribute, some of the best ground through which we have yet opened in the mine. In the 148 fm. level, driving west, the part of the lode which we are carrying is 5 ft. wide, and worth 157 per fm.; this level is not yet over the valuable tin ground in the 170. We have just commenced driving the 148 fm. level east of the engine-shaft, for the purpose of communicating it with the new east shaft. New east shaft is now sinking below the 138 fm. level, and we expect to hole it to the 140 fm. level at about the latter part of the month. The cross-cut driving south from Dunkin's lode, at the 160 fm. level, has not yet met with anything worthy of particular notice. At North Tincroft lode, in the 80 fm. level, driving east from flat-rod shaft, the lode is poor. The tribute department is much the same as when last reported. Our steam stamping-engine seems now to be in good order of working, and is doing better than for some time past, so that we seem likely to make up for lost time, and to be enabled to get rather a larger quantity of tin for the next sale, than we had at the last. We have advertised for tenders for working the steam-stamps; and, should any be sent in to us offering, an advantage on the present expenses, it will be accepted. In the conditions of the contract there is provision made for any alteration that may take place in the quantity of work that the machine may be required to perform.—J. VIVIAN: Nov. 2.

CUBERT SILVER-LEAD.—We have this day held the public setting for November, and we have also just finished the pay for September. The ground in the engine-shaft is exceedingly wet and hard. The lode going east and west at the 25 fm. level is at present small, and only producing a little lead, but we consider looking kindly, and soon to alter favourably. In the 15 fm. level going west, in the Earl of Falmouth's land, the lode is about 18 in. wide, yielding saving work—a promising level; the same may be said with respect to the eastern end at this level. We have set two men to-day to drive west on the great or middle lode at the 25. We are progressing with the burning-house. Before we can cut the lode at the 35 fm. level, a second boiler must be had, and 10 fms. of 16 inch pitwork.—Oct. 30.

ELLBOROUGH (Somerset).—In handing you my report on the proceedings of the last three months, I beg to say, that Chipman's works have been cleared to the depth of 20 fms. from surface, and east and west 20 fms. more—in driving which, arches of ground have been discovered, both at 6 fms. and 10 fms. below the surface, composed principally of spar, with branches of lead and calamine; and on the one at point of horse, and in the bottom below, on the north part of the lode, where it is standing whole, one man and a boy, in September month, raised 18 cwt. of lead, and 10 cwt. of calamine—two men and a boy are now stopping the bottom; the south part of the lode has been sunk 10 fms. deeper, and in the bottom we find the lode to be composed of spar and floukan, which assumes a very kindly appearance, but have been obliged to abandon it in consequence of foul air, and the difficulty of getting away the stuff—having been worked by the gruffers in such an awkward manner; and, in my opinion, it would be necessary to have a shaft sunk east at the point of horse, which would be sunk on the course of the lode; and I have no doubt that lead would be raised in sinking, as the gruffers raised lead in abundance east of this, as well as in Chipman's works. At the north lode, since our last meeting, we have sunk 9 ft.—making the depth 14 fms. from surface; in doing so, we raised about 1 ton of barytes—this is all abandoned at the end of July, as the lode split and took horse; but both the north and south parts of the lode contain lead and barytes. In removing the men from here, I put them on tribute on the backs, both for lead and barytes; and these two men raised in two months about 17 tons of barytes, and 21 cwt. of lead, and are now working at 10s. per ton for barytes, and 12s. in the 14 for lead, and they are making wages at this tribute; I, therefore, consider our prospects are looking well and that we shall have a good mine by-and-bye.—RICHARD TREVITHICK.—[We gave a report of the meeting of adventurers in last week's Journal, and now present the agents' report furnished to the meeting, which we consider encouraging, and will prove highly satisfactory to the adventurers.]

GREAT MICHELL CONSOLS.—I beg to hand you the following report on these mines:—On my taking charge at the latter end of January last, the only work in progress was driving the adit level, which is 9 fms. deep, by four men; this work has been continued until August, when it was considered enough had been done for the present—the drive, since we commenced, amounted to 25 fms.; the lode averaging 2 1/2 ft. wide, and of a promising appearance, producing in places some good stones of ore—this adit would come into our present shaft at the depth of 28 fms. from surface in 308 fms. driving. The shaft was pitched to take the lode 20 fms. deep, and was commenced on the 29th of January; we cut the lode some time since, 22 fms. from the surface. The ground, for the whole distance sunk, was favourable for sinking, and very congenial for ore; the lode here, on being cut through, was full 7 ft. wide, composed of gossan, spar, mundie, and good stones of ore; in driving east the lode very much improved; at about 9 ft. east of the shaft, we cut a good course of ore in the bottom of the level, 3 ft. wide, worth at least 40s. per fm. for about 2 1/2 fms. in length; from this point to the present end—being now 12 1/2 fms. east of the shaft—the lode assumes a very splendid appearance for the whole width of the end, it is composed chiefly of gossan of the finest description, producing rich stones of ore, and occasionally some good saving work; the full size of the

lode is not as yet known, although it has been cut into at one point of the drive, for upwards of 7 1/2 ft., without reaching either the north or south wall thereof. The 22 fm. level has been driven west from the shaft 7 fms. in the north part of the lode—its composition is capel, spar, gossan, mundie, and stones of ore; the present end is promising improvement. About 24 fms. east of the engine-shaft the lode at surface is very fine; large rocks of prime gossan have been thrown off by it; and it is expected that, when the level is driven under this point, we shall find the lode materially improved; the shaft is now down 10 ft. under the 22 fm. level, and, from the present appearance of the ground, we expect to reach the 32 fm. level in about 11 weeks. The water-wheel, 45 ft. by 4 1/2 ft., is a very efficient machine, and will enable us to sink to a great depth—I should say, 150 fms. During the late dry season, we had a very good stream of water, quite sufficient for working it; and there is another stream available, if at any time required. On the whole, I consider the prospects of the concern a flattering description.—T. RICHARDS: Nov. 3.

EAST TAMAR CONSOLS.—At Whitson, I have put the shaftmen to cut a plat at the 54 fm. level to prepare for sinking, which work will be completed by the latter part of this week. In the 54 fm. level south, the lode is 2 ft. wide, saving work; in the 54 fm. level north, the lode is 20 in. wide, composed of fluor, spar, and ore. In the 46 fm. level south, the lode is 18 in. wide, saving work.—At Furzehill, we have commenced sinking Harrison's shaft—the lode here is looking very promising. The lode in the 38 fm. level north and south, is 2 ft. wide, saving work. We have set a pitch in the back of this level, at 6s. 8d. in the 17 tribute work. In the 30 fm. level south, the lode is 20 in. wide, composed of fluor, spar, and ore. Our machine houses are up, waiting for the engineer to put in the machinery for the stamps and crusher.—B. ROBINSON: Nov. 3.

GUNNIS LAKE.—At Chilsworthy, the lode in the 12 fm. level, west of Bailey's engine-shaft, is 2 1/2 ft. wide, producing some good saving work; and in this level east, there is no alteration. In Bailey's engine-shaft, the lode is 3 ft. wide, composed of gossan and spar, and good stones of copper ore in places—a very kindly lode.—W. RICHARDS: Nov. 3.

HAWKMOOR.—In the 15 fm. level, east of Hitchins's shaft, there has been but little done in the past week, the men having been put to clear a shaft for the purpose of ventilation.—P. RICHARDS: Nov. 3.

HOLMBUSH.—I beg to inform you, the shaftmen are still engaged about the work reported on last week. We have intersected the lode at the 120 fm. level, west of the great cross-course, and find it 1 ft. wide, and worth 207 per fm.; in the same level, driving east, the lode is 10 in. wide, composed of mundie, spar, and stones of ore. In the 120 fm. level, west of winze, the lode is 12 inches wide, and worth 67 per fm. The lode in the rise above the 110 fathom level (on the north part) is 1 ft. wide, producing stones of ore; in the 110 south we have favourable ground for driving on the flokan part of the lode, which is producing stones of lead. The lode in the slopes below the 100 fm. level, on the north part, is 18 in. wide, and with 127 per fm.; in the same level, driving south, the lode is 3 ft. wide, composed of spar, flokan, and stones of lead. The lead pitches, in the back of this level, are much the same as last reported on. We weighed at Calstock quay, on Friday last, September ores, 97 tons 9 cwt., and sampled Oct. ores, computed 108 tons. I beg to inform you, also, that our lead ores have weighed 12 tons 5 cwt. 1 qr., payable, and is in the cellars at Hutton quay, waiting the arrival of the vessel.—W. LEAN: Nov. 3.

LANIVET CONSOLS.—In the 80 fm. level, west of Elizabeth shaft, the leader part of the lode is 2 ft. wide, producing a little ore; ditto east, the lode is 3 ft. wide, saving work. In the winze coming down from the 70, on this level, the leader part of the lode is 1 ft. wide, producing some good ore. We have cut 2 fms. into the lode at the 40 fm. level, but have not yet cut the north lode; throughout the operations the lode has produced a small quantity of ore, but not worth saving. The lode in the 30 east is at present unproductive—we expect a speedy improvement in this end, as there is one gone up in a pitch in the back of the 40, which is but a few fathoms east of the end before mentioned.—HENRY WILLIAMS; WILLIAM MICHELL.

LEWIS.—At Wheal Nutt engine-shaft, the lode in the 60 fm. level end east is 1 ft. wide, producing some tin; we expect shortly to intersect a flokan in this level; and to the east of the same we are hoping to have such an improvement as we had at the level above. The lode in the 60 west is 2 ft. wide, worth 21 per fm. for tin. The lode in the 50 fm. level end east is 4 feet wide worth 50s. per fm. for tin. We are continuing to drive the cross-cut south at the 50, west of engine-shaft, in order to intersect the south branch, ground favourable. The lode in the 40 fm. level end east is 2 1/2 ft. wide, worth 47 per fm. for tin; the lode in the 40 fm. level end west, on south branch, is 8 inches wide, worth 21 per fm. for tin. The lode in the 30 fathom level east is 2 feet wide, worth 21 per fm. for tin; the lode in the 30 end west, on south branch, is 10 in. wide, set at 10s. in 20s. for saving the tin; the back and bottom, in this level, are set at an average tribute of 11s. We are also extending the cross-cut north, at the 20 fm. level, from copper ore shaft, where we expect shortly to intersect the north lode (or lode in Bush's shaft); the lode in Bush's shaft, sinking under adit level, is 20 in. wide, saving work for tin. We have this day commenced to put the boiler for the stamping machine in its place and are using every effort to get the stamps to work as soon as possible.—S. S. NOKILL: Oct. 31.

MENDIP HILLS.—No important alteration has taken place in any part of the mine during the past week. The lode in Stainsby's shaft continues about 8 ft. wide, composed of quartz, flokan, and stones of good quality lead in places; the ground is favourable for sinking, being sunk at 57 per fm., now down 17 ft. 6 in. below the 38 fm. level. In the 25 fm. level, north of Barwell's shaft, the lode is about 3 ft. wide, composed of carbonate of lime and quartz, ground not quite so favourable for driving as it has been. In the 20 fm. level cross-cut, west of new shaft, the ground continues very hard for driving.—F. C. HARPUR: Nov. 2.

PENTUAN WHEEL MARY.—Since the 21st of last month the men have driven 5 fms. The ground, through which we are driving, is still looking well. From the strata, we have good indications of the lode yielding plenty of copper ore in depth, and from which there is also every prospect of success.—JAMES CHYKOWETH: Nov. 3.

SOUTH WHEEL TRELAWEY.—Sobey's lode, in the adit level south is 1 ft. wide, composed of gossan, priam, flokan, and mundie—underlying east 1 ft. 9 in. in a fm., and is again set to drive by four men, at 21. 15s. per fm., in driving the last 7 or 8 ft. the lode was much larger, and has a kinder appearance than the lode in the present end; the direction of the lode is 17° west of south; and, having carried it out on that point for some distance southward from the adit end, we have fixed on a spot where to sink the engine-shaft, which we shall commence in a few days. The men are employed just now in making a road for the materials to be carried in the field, where we shall fix our horse-whim, carry stone for building engine-house, and all that is necessary. We have costained in several places, but the shaft being so deep, that nothing of a lode can be seen in either pit; we have, therefore, abandoned it, and shall fill them in. In the deep adit east we have intersected another branch of gossan, 6 in. wide, and have driven north on it for some distance; but is underlying so very fast east before the elvan-course (as all the other branches are we previously intersected), that we think it advisable to suspend operations here, and to confine ourselves to the sinking of the engine-shaft, and in driving south on Sobey's lode, to communicate to the shaft, to unwater and ventilate it, which will be at a depth of about 14 fms. I would likewise beg to inform you, we are raising stone for building engine-house, &c., and have got about 400 loads ready for the works.—W. LEAN: Oct. 31.

TRELEIGH.—At Christie's shaft, below the 100 fm. level, this will be sunk in the country; in the 100, east of ditto, lode 2 ft. wide, producing stones of ore, rather better than last week; in the 100, west of ditto, lode small, no ore. The 90 fathom level, west of ditto, holed; the winze, below the 90 fathom level east, holed; 90 fathom level, east of Garden's shaft, holed. In Garden's shaft, below the 90, the men are about preparing for the plunger lift; in the 90, west of ditto, lode 8 ft. wide, looking a little better than last reported, worth 23s. per fm. In the 80, west of ditto, lode 2 ft. wide, with stones of ore. In the winze, below the 70, lode 18 in. wide, rather more promising, with stones of ore. In the 70, west of Good Fortune, lode 3 1/2 ft. wide, worth 102 per fm. In the 60, west of Symons's, lode 2 ft. wide, worth 57 per fm. In the 53 west, on the north lode, the lode is 18 in. wide, very promising, worth 47 per fm., and a kindly appearance. In the 44, west of ditto, lode 14 in. wide, producing stones of ore, not of much value; the adit, west of ditto, is suspended; the cross-cut, south of ditto, south in the country, towards west shaft. The west shaft is suspended.—W. SYMONS: Oct. 30.

UNITED HILLS.—In the 90 fm. level we have not yet cut the south wall of the lode; in driving south, in the eastern end of this level, it still continues very wet and hard; in the western end the lode is 3 ft. wide, 2 ft. good ore; in the slopes the lode is 2 1/2 ft. wide, 18 in. ore of good quality. In the 80 fm. level, eastern end, the lode is 3 1/2 ft. wide, unproductive; the ground in the cross-cut continues much as last reported. In the 70 fm. level, eastern end, the lode is 3 ft. wide, 18 in. ore of fair quality; the ground in the cross-cut is a little more favourable for driving than last reported; in the eastern shaft the lode is 3 1/2 ft. wide, 18 in. ore of fair quality. In the 60 fm. level the lode is 3 1/2 ft. wide, 2 ft. ore of average quality. In the 50 fm. level the ground is much harder for driving than last reported. In the shallow adit level the lode is 3 ft. wide, ore throughout, of low quality. At Wheal Charles, in the 50 fm. level the lode is 2 ft. wide, producing some stones of ore, with a promising appearance. In the 40 fm. level the lode is 4 ft. wide, 2 ft. ore of average quality. At Wheal Sparrow, in the 40 fm. level, those ends are communicated; the men are now engaged putting in tramroad and sundry other work. In the 30 fm. level the lode is 18 in. wide, producing some good stones of ore.—THOMAS TREVITHICK; ROBERT WILLIAMS: Nov. 3.

WHEEL BLENCOWE.—I am happy to inform you, that we have cut a good lode to-night in the bottom of our winze, between the 10 fm. and the 20 fm. level, and we have also a good lode in the western end; the mine is looking more kindly now than she has looked for some time.—JOHN DALE.

WEST WHEEL FRIENDSHIP.—The engine-shaft is sunk to the depth of 33 fathoms below the surface. At the depth of 20 fms. an adit is communicated, which has been driven about 120 fms.; at this depth a lode was intersected in the shaft, called the north lode, underlying north about 3 1/2 ft. in a fm. A level is being driven west, on the course of this lode, which is from 2 to 4 ft. wide, composed chiefly of mundie, dark killas, and quartz. From the character and appearance of this lode, I should recommend a suspension of all operations on it at so shallow a depth, as I consider there is no chance of making any valuable discovery on this lode at the adit level. A cross-cut has been driven south from the engine-shaft about 7 fms. at this point; another lode, known by the name of middle lode, was intersected, about 4 ft. wide, underlying north, full 6 feet in a fm., with a well-defined wall on the south-side. A level has been driven west about 3 fms., on the course of this lode, which is composed of mundie, soft dark killas, and capel. From the general appearance of this lode, I cannot recommend any further outlay at this point. I do not consider that this cross-cut has been driven a sufficient distance south, to prove the ground under the great gossan lode, met with in costeaning at the surface, and would recommend this cross-course to be driven by six men, at least 10 or 15 fms., in order to prove the south ground; as I believe a large quantity of gossan, discovered at the surface, is not produced from the lode already intersected in this cross-cut. In sinking the engine-shaft about 7 fms. below the adit level, the middle lode was intersected, continuing its underlay about 6 ft. in a fm.; the character and appearance much as where intersected in the south cross-cut. At the depth of 18 fms., or bottom of engine-shaft, a cross-cut is being driven north, to intersect the middle and north lodes. I should recommend that this cross-cut be continued north, to intersect both of these lodes, before again sinking the engine-shaft below the present depth, for the following reason:—If the lode is intersected in driving the cross-cut south, at the adit level underlying north, and the middle and north lodes, when intersected in the 38 fm. level cross-cut, are found to continue the present underlay, it would be advisable to again sink the present engine-shaft—as every 10 fms. sunk would require such an increased length of cross-cut to intersect these lodes. If the prospects should be found to be good, it would be then advisable to sink the new shaft for the development of these lodes in depth. Although these lodes at the adit level do not hold out any great encouragement of their being found productive, yet I consider that the quantity of gossan found near the surface is sufficient to recommend a further trial being given. The water-wheel erected appears to be a good one, with a sufficient supply of water to give this mine a satisfactory trial. It appears from the nature of the ground in which this wheel-pit lobby or open-cutting, for taking off the water from the same, was such as to cause a great additional expense beyond what was calculated on at the commencement; but I consider it is now done in such a manner as to prevent any hindrance, as the greater portion of the lobby has been arched.—S. SECCOMBE: Oct. 13.

WEST WHEEL JEWEL.—In the 115 fm. level, east on Wheal Jewel lode, the lode is 15 in. wide, producing some stones of ore—this lode has a more promising appearance than when last reported. In the 100 fm. level east, on the same lode, the lode is 2 1/2 ft. wide, worth 94 per fm. In the 85 fm. level west, on the same lode, the lode is 1 ft. wide, unproductive. In the 12 fm. level west, on Tolcarne, the lode is 18 in. wide, worth 277 per fm., a little improvement in the past week. In the winze, in the bottom of the 12 fm. level, east of Quarry shaft, on the same lode, the lode is 2 ft. wide, worth 187 per fm. In the winze, in the bottom of the deep adit, west of Quarry shaft, on the same lode, the lode is worth 87 per fm. In the winze, in the bottom of the deep adit, west of old sump shaft, on the same lode, the lode is worth 47 per fm.—RICHARD JOHNS: Nov. 2.

WHEEL AGNES.—I beg to state, the lode in the levels, east and west, is 18 in. wide, saving work. The air in the ends is very foul, so that we could not conveniently drive the levels and work the backs on tribute, except we make a ventilation for air, which will make it better for driving the levels and working the backs. Saturday last, being our survey day, we set a pitch on tribute, at 9s. 6d. in the 12, and have suspended the levels for the present; we have also set a shaft to sink to come down on the levels, at 30s. per fm.—B. ROBINSON: Nov. 3.

WHEEL ADAMS.—In the 50 fm. level, driving south on the branch, we have some good stones of lead from it. I think that we are very near the lode by the water that is coming from it; I hope that we shall see it in a short time, and hope to see a good lode by the stuff that is coming from the branch. The 40 fm. level, driving south on the western silver-lead, is much the same as last reported. I put the men that were in the rise, on the middle lode, to rise up under the winze coming down from the 28 fm. level, on the western lode; we expect to get through this week to the rise in the back of the 40 fm. level. The lode in the bottom of the winze, in the 28 fm. level, is very much the same as last reported; the tribute pitches are very much the same as last reported. I think that most of them are getting fair wages on their tribute.—T. MOYLE.

WHEEL ANNA.—This mine is sunk to the depth of 50 fms. from surface, and the 30, 40, and 50 fm. levels are driven about 120 fms. each; and the lode in them, west of the engine and whim-shafts, appears to be all nearly worked away by former adventurers, while the lode to the east of the engine-shaft, from what remains, does not appear to have been so productive; the size of the lode seems to vary from 2 to 6 ft. wide, and is very hard; and what has been done in the level westward by former adventurers, leaves me to think favourably of the mine further westward, and at deeper levels; they had broken some good stones of ore in cross-cutting the lode at the 50 fm. level, just as I came. I have pointed out what I think the best and speediest way of bringing the mine into a state to do some good for the adventurers in which Capt. Choake concurred; the operations should be confined to sinking the whim-shaft to the 60 fm. level, and driving the 30, 40, and 50 fm. levels west, and, more particularly, as the water charge is very easy: the surface and underground operations are economically laid out. I think you have a very good speculation in hand, and have no doubt, in laying open the mine, you will have good returns of copper; the mine is yet just in its infancy.—J. BRAY: Oct. 17.

WHEEL CARPENTER.—The mine is 10 fms. deep from surface—the water being drawn by a horse-whim; about 12 fms. have been opened on the lode, which has averaged about 2 1/2 ft. wide—its component parts are quartz, spotted with mundie, and producing fine stones of lead. In the 10 fm. level, driving east, a branch of copper ore has been discovered, 7 in. solid; there is another lode, or part of the same, 3 ft. wide north from that described—these two, with the intervening country, which is killas, have been considered hitherto as portions of one large lode; but such at present does not appear to be the case. The concern may be considered as one of good promise.

WHEEL CONCORD.—According to desire, I have traced the direction of the lode in this mine as far west as Wheal Carpenter shaft, and it does not appear to be our lode on which their operations are carried on, but about 80 fms. south from the main bearing of Concord lode; should it be our lode, of which, however, there is no certainty, it must have made a considerable bend south in pursuing its course west, or have been heaved to the left hand by a cross-course, either of which may be possible; but, in my opinion, not very probable, considering the direction the lode takes here, which is 234° north of west. There have been two or three lodes opened on in the vicinity of Concord main lode south, and, in my opinion, it is very likely to be one of those. Under any circumstances, the distance is too great to speak with any degree of certainty.—JAMES B. CLYMO: Oct. 29.

I beg to inform you, that we have holed the rise from the 38 to the 28 fm. level, west from the engine-shaft, and I purpose to commence driving the 38 fm. level west immediately, where there is a kindly lode, 2 1/2 ft. wide. All the men that were engaged in driving east and west at the 28 fm. level, are now busily employed in exploring the old backs above the level; and, if reports be true, our labours must ultimately be crowned with success, although, as yet, we have seen but little ore. In driving the 20 fm. level south there is a north and south branch in the end, which produces good stones of lead, probably deposited from the course of lead above, and which, we fully expect, is before us. They are now between 2 and 3 fms. to get at the point where we expect to cut the south part of the lode. The lode in the winze, below the 10 fm. level, is 4 ft. wide, very good; in the slopes, in the back of the 10 fm. level, the lode is not quite so good as it was; but we shall exert ourselves to rise as much from it as possible; the lode in the 10 fm. level, driving east, is much the same as usual. We have about 12 tons of lead ore dressed.—J. B. CLYMO: Oct. 31.

WHEEL WALTER.—The engine-shaft (London shaft) has been sunk 304 fms. below the surface, and a 30 fm. level cross-cut has been extended south from it 7 fms., which is shortly expected to intersect C lode; the shaft throughout has penetrated strata of deep blue killas, intermixed with branches and layers of felspar—all of which are decomposing, until within a few feet of the bottom, where, as well as in the cross-cut, it has become more settled and compact, which I prefer to when in a decomposed strata, as the lode will probably partake of the settled nature of the surrounding rock. C lode has been intersected in the adit 3 fms. below surface, and also in a shaft 6 fms. deep, to the west-west of the engine-shaft; in both places it is several fathoms wide (the exact width has never been ascertained), chiefly calcareous spar and decomposed slate, with mundie and particles of copper and lead ores; in my opinion, it presents very good indications, and is worthy of extensive trial. D lode is situated north from the one above described, about 62 fms.; there is a cross-cut driving towards this lode at the adit, which is expected to intersect it, when extended 5 fms. further, until which time it would be premature to offer an opinion on it; south from C lode, about 53 fms., is B lode, on which the adit has been driven west 29 fms.—this lode has varied from 12 ft. to 2 ft. wide; its composition is decomposed felspar, killas, and mundie, sometimes conglomerated; about 6 fms. from the cross-cut west this lode produced a small portion of lead, where a winze has been sunk, I was informed, 5 1/2 fms.; beyond the end, about 20 fms., the great cross-course passes, to which point I think it would be advisable, under all ordinary circumstances, to extend the level, as many lodes make rich in similar situations, when poor at others. I should also think it judicious plan to prosecute the winze, below this level, afresh, to explore the lode, where the rock is probably of a more permanent character; 48 fms.

south from that last spoken of, is a lode, on which the adit has been opened 6 fms.—it is composed of gossan and spar, 2 ft. wide, but of a character not worthy of recommendation. Upon the whole, from the mineralised and congealed nature of the strata, in which B and C lodes are embedded, the trifling water charges, the dispatch that can be made in developing the lodes, as well as the great width and favourable appearance of C lode particularly, I think you have a fair prospect of a good mine before you.—J. R. CLEMO: Oct. 31.

WHEAL LOUISA.—Our sumpmen will resume sinking in the course of a day or two; and I hope the shaft will be down to the 20 fm. level in a short time, when we shall drive towards the lode with all possible speed. I am much pleased to inform you, that we have cut a lode in the south part of the mine, apparently a parallel lode to those which we are now driving to cut; the lode is about 2 ft. wide, composed of sugary spar, prismatic, with strong indications of copper ore, a very kindly lode. Since the above, we have been driving through a beautiful soft killas, crossing several branches, from which appearances we have every reason to think the main lode is very near. We are driving the level into the hill at 8s. per fm., no timber—from this I will leave you to judge what the ground must be; the men are making wages at that price. JAMES CHYLOWETH: Nov. 4.

FOREIGN MINES.

BOLANOS MINES.—San Clemente, Sept. 14.—I have the pleasure to acknowledge receipt of your secretary's favour 1st June.

EL BORN MINE.—The tutworks, as they have been driving in straight lines, and not following the ore especially, have naturally been less productive of ore than those works would have been, if worked *a la carga*; but my primary objects have been to open out the mine, and discover the ground, nevertheless, the ore broken during the six weeks we have been at work, will not average less than 800 cargas weekly. Besides the other tutworks, we have cleared out the shaft to the bottom, 15 varas below the Guadalupe cross-cut, and squared down its sides. By the accompanying account, you will perceive the total mine costs, for the month ending 29th August, amounted to \$8729; the ore raised to that date, 3069 cargas, worth \$8 per carga, \$24552—so that the expenses of the mine have been fully covered, notwithstanding the great number of dead works performed: a number of these bargains have ceased from the present week; and as we now want ore, and the sinking of the shaft will be easier and cheaper when three malacates can be devoted to it, I have suspended this work till the new malacate is ready, which will be, no doubt, by the end of next week; and, in the meanwhile, I have ordered as many bargains to be put on ore as can be accommodated; and, during these two weeks, I have no doubt we shall break upwards of 2000 cargas weekly.

SAN CLEMENTE SETTS.—The working and produce of these mines continue to decline. The little promise given by the west end of La Luz led to nothing, and the working is again in borrasca. The water is in the level of San Fernando rising very slowly.

SAN FRANCISCO DE PAULA MINE.—A third malacate has been put to work, and a cistern completed at the mouth of the cross-cut No. 3. The water from this cross-cut had increased so much, that it prevented our working in the bottom of the shaft till this cistern was made, and it now requires 14 malacates to keep the water in the cistern; half a malacate keeps the water in fork in the bottom of the shaft, and enables us to go on with the sinking. The third malacate raises the ore and attle, working by day only, except one night in the week. Notwithstanding this feed of water from the third cross-cut, instead of its draining the winzes in the level above, the water in them has risen a little, so that it is evident that we have not yet cut that division of the lode; we have, however, last week cut a new vein of good ore, and a fresh feed of water—so that we may now soon expect to drain those interesting points. The buscones returned to work on the conditions required of them, after one week's turn out. Their workings, however, have fallen off, and their raising does not exceed 40 or 50 cargas weekly, of low ley; the bottoms of level No. 2, under water, are much misused. The losses on this mine will, consequently, continue until those bottoms are drained, and until we can break the ore in our new discoveries in level No. 3.

CELESTINA MINE.—Owing to the suspension of work in this mine, advised in my last, no "torta" has been washed in August, and the loss appears heavy. The produce of the partido system, however, will cover this loss in September. During the first week of partido, we had an average of 20 paradars at work by day, and 10 by night, and they broke for the hacienda share, 150 cargas of ore, assaying in the patio 16 mcs.; but as the buscones had difficulty in settling their share, the number of paradars who came to work has declined, and our raising has since averaged only about 50 cargas weekly. The raising will, however, increase this week, in consequence of the communication having been made between the 64 vara level, and the Celestina winze, which will open a good field of ore, to be broken by bargain. The north end of Mayorazgo has continued in ore, opening ground for the buscones. The south end of Entre-año has cut into the Celestina lode, and now drives upon it eastward. The winze from 64 vara level has been suspended at the depth of 14 varas, owing to the heavy expense of drainage by hand—no ore has been found in this work. The north cross-cut of 64 vara level, having gone through all signs of vein, has also been abandoned; no part of that vein was found worth any trial.

P.S.—Sept. 17.—Since writing the foregoing, the cross-cut No. 3 from San Francisco shaft has cut another wide vein of azogues; from which, probably, 20 cargas will be filled, in going through it; at the same time, a heavy stream of water has been cut, which has filled the shaft almost up to that cross-cut. This has at length drained the winzes of the level No. 2, and next week we shall be able to break ore in them. We shall, however, require our three malacates, to master the water now in the shaft; but I trust this will be done in a week, and after that we can keep it in fork with the same power it required before, and have one malacate free for raising ore and attle, and begin immediately to produce abundance of ore, and reduce the debt of the mine.

Statement showing the General Results of the Mines and Haciendas for August—

Mines.	Profit.	Loss.
San Clemente Mine	.....	\$ 938 4 1
San Nicolas	\$1692 1 2	.....
Malanchoe	.....	844 1 1
San Rafael	.....	5839 2 1
Loreto	.....	77 5 4
Santa Barbara	208 2 7	.....
Celestina	.....	4512 6 3
Disputed ground	.....	266 4 5
Haciendas	3099 3 7	.....
	\$5000 0 0	\$12,478 7 7
Profit	.....	5000 6 0
Deficiency	.....	\$ 7478 7 7

IMPERIAL BRAZILIAN MINES.—Gongo, August 13.—A small bit of the back of the vein remaining at the surface, near Hocheder's shaft, has given us a few hat eaps of work for the washing-house. The vein intersected at the 14 fm. level, south of Dural's shaft, does not look so well as when first seen. The other parts of the mine have their usual appearance, and call for no remark. The quartz vein at Catta Preta does not improve; I expect the stamping of the refuse at the surface will be completed by the end of this month.

Gongo, August 22.—The gold troop, in charge of Capt. Guy, will, probably, leave for Rio on or about the 25th inst. I am sorry to say, the remittance will consist of only about 60 lbs. of Gongo gold, and about 12 lbs. from Catta Preta. Though our works are pushed with the utmost vigour, I regret that the mine calls for no remark, and presents the same aspect of dreary poverty it has so long had.—W. J. HENWOOD.

Gold workings, from 1st July to end of August, 54 lbs. 6 oz. 6 dwts.

NATIONAL BRAZILIAN MINES.—Cocoes Mine, August 13.—You may rely on my handing you every information I possibly can relative to my department, which I consider likely to be useful and interesting; but, until our works in the mine are resumed, and our stamps supplied with ores from the auriferous ground, my reports will be very little more than a statement of the work performed from one 10 days to another.

Extract from Messrs. Freeland & Co.'s Letter, dated Rio de Janeiro, Sept. 11.
We forward a letter from Jose Feliciano, relative to the Cocoes Mine; he has shown the writer several letters which he has received during his stay here—since May last—in which allusion to the discovery is continually made; it would appear, from what we learn, that no advantage can be derived to bring out the mine fully, without laying out so much as will make, at least, 70 or 80 stamp-heads, and setting the matter to work actively. It is also the universal opinion, that the mine will amply repay the additional expense which may be incurred, and be one of the most productive in the country; it being a mass of stone on the surface—requiring no timbering whatever, but simply quarrying and stamping down—much expense will be saved in consequence. We gladly mention what is so fully confirmed here, and hope that you will derive the full extent of your wishes in due time. We refer to the letter of Senr. Jose Feliciano. The new stamps are expected to be at work by the 15th Sept.

PACHUCA MINES.—Sept. 28.—Rejona.—The lode in San Miguel shaft seems to be improving—a branch near the hanging wall about 1 ft. wide, is looking better than hitherto; a sample produced 11 mcs. per monton; but in order that this branch may be taken down clean, it was left to remain all last week; it will, however, be taken down in the course of a day or two, when I hope the result will be several quintals of ore. The 60 vara cross-cut has only been driven three-quarters of a vara in the last month for want of powder.

Esperanza.—San Guillermo shaft is sinking on the north or Quemazon lode; assays produced about 12 ozs. of silver per monton. The large sparry lode, in the foot wall, has not been examined; some stones assayed 54 mcs. per monton. We are sinking on the Quemazon lode, being softer; the whole cost being \$8 per vara only, while sinking on the sparry lode would cost \$30. The shaft is now 16 varas deep, and at 25 varas we propose to drive a cross-cut through it.

Guadalupe.—Since last month San Pedro shaft has produced, in 24 varas sinking, 26 quintals of ore; 7 1/2 of the best, assayed 33 mcs. per monton; 4 1/2

quintals, 184 mcs.; 9 quintals, 104 mcs.; and 5 quintals, 15 mcs. per monton. The lode presents promising indications, with every appearance of being more productive in depth. Nearly the whole of the ground on both ends of the shaft, for the last 5 varas, will pay for breaking away—the western end will leave good profit. In this trial, I trust we have proved successful. It is true, the quantity of ore is still very small; but when it is borne in mind, that we are working on an entirely new vein of extraordinary width, in a part of the Pachuca district, hitherto unexplored, it must be confessed the indications are very promising.—Expenditure in August (5 weeks), \$889.

REAL DEL MONTE MINES.—Mineral del Monte, Sept. 27.—I beg to acknowledge the receipt of your dispatches of July 30, which came to hand on 17th inst. Enclosed you will receive a statement of Mr. Spangenberg's trial of the new patent beneficio, from April to August inclusive, being five months, compared with the barrels during the same time. It will be seen that, during this period, 49 7-30ths montones have been reduced by this process, the average cost of which amounts to about \$23 per monton. Had a larger quantity been reduced in the same time, it is probable the cost would have come out lower, as the salaries, watching, &c., would be the same with a large or small quantity. The average loss of silver appears high, being about 37 1/2 per cent.; but the residue in certain cases has been again subjected to a second calcination for a little while, with 1 per cent. of salt, where the reduction process is repeated, by which operation nearly all the silver is extracted. It appears, however, that this process does not answer well in all kinds of ores—such, for instance, as the Rosario ores, and the rich smelting ores from the Biscaina vein. The calcining process seems to be the most delicate part of the operation, and requires the greatest attention; but even then there are certain kinds of ore, which do not always give the signs by which it may be known when the ore is sufficiently roasted. Mr. Spangenberg has been this month employed reducing ore from the Moran Mine only, and with better results than heretofore, having reduced the quantity of salt from 4 to 2 per cent. By the barrel process, 605 5-30ths montones were reduced during the last five months, the average cost of which amounted to \$31 3 per monton. The loss of quicksilver was about 10—65 per cent., and quicksilver about 44 ozs. per mark; the loss of quicksilver is rather more than it would have been, in consequence of the capelina being a bad one; in other respects the results have been very uniform. The average of 40 assays of the residue from the barrels is 1 mark 5 ozs. During the last three months, with the exception of a few days, we have had continual heavy rains, and particularly during the present month, which have retarded all the surface works, especially the erection of the new barrels at the hacienda of Sanchez, which otherwise would, ere this, have been completed. I observe that the machinery for the six-edge stone armatures for San Antonio have been ordered, and will, probably, be forwarded some time about the latter part of this year. I expected they would be very expensive; but, when once erected, it is difficult to calculate the length of time they will last, as the one working at Sanchez, now 18 months, shows very slight symptoms of wear. I have much satisfaction in referring you to Capt. Ralings's report, dated 24th inst., by which you will perceive that the workings of San Enrique, San Pablo, El Frute de Santiago, and the new mine below the latter, will continue to produce a good supply of smelting ore, and an increasing quantity of azogues.

In the Santiago level end, the branch of rich smelting ore is not at present quite so regular as it has generally been, but the whole body of the vein is good ore, interspersed with bunches of the best class. This end has now passed through 35 varas of good ore ground, and, judging from the appearance in the working west of San Enrique above, we may expect it will continue, at least from 15 to 20 varas more. The new winze below the level is, perhaps, the best point, and I trust it will continue—indeed, there is every reason to expect it. These workings produced altogether in the last four weeks 350 cargas of smelting ore, assaying 130 mcs. per monton, and 628 cargas of azogues—the rough assaying 20, and the refined from 12 to 13 mcs. per monton. The San Andres level, being north of Dolores, on the Santa Brigida vein, has reached the east and west branch, situated about 40 varas north of the shaft, as noticed in my letter of last month, and, although it has not yet passed quite through it, the water has already considerably increased; and I expect, in a very short time, that all the water at present issuing from the avadero level will be cut down, and thus enable us to follow down the ore in the bottom of that level, in the winze situated just below the San Eduardo rise; and besides this, I hope it will have the effect of diminishing the water at Acosta. With respect to this latter mine, I regret to state, that the water has become so abundant, that the two engines are not equal to the power required to keep up the drainage. There is no doubt, however, that a large quantity of the water is owing to the unusually heavy rains, and that, when the dry season sets in, it will abate; and we may also expect a portion will be shortly drawn off by means of the San Andres level, north of Dolores, but still it cannot be disguised, that unless prompt measures are taken for the erection of a new engine, we shall, in a comparatively short time, be deprived of the means of keeping up the usual extraction of ore from this mine—that is, as soon as the ground already discovered above the avadero level is exhausted—it is not probable, under these circumstances, we shall be able to follow deeper. By Capt. Skindell's letter of the 24th instant, it will be noticed, that the water still produces a very promising ore; and taken in conjunction with the rich branch of ore, which we have at San Cayetano, fully deserves the great outlay I am now proposing. It is evident that, if we are prevented from deepening the mine at Acosta, the deep workings of Dolores and San Cayetano will become the receptacle for the principal portion of the water, and which would unavoidably prevent much further progress in depth.

ROSARIO.—In this mine little has been done since I last wrote to you, in consequence of a want of gunpowder. The labores at San Miguel level, east and west of San Rafael, continue just as usual, and, ere this, are a large, composed of azogues ore, containing 9 to 10 mcs. per monton. The Santa Nina level, driving east, appears to be improving—there is a small branch of blue ore in the end, which assays from 15 to 20 mcs. per monton. I fear the returns for the present month will not be equal to the estimate. In the first place, nearly all the furnaces require repairs, and were idle the greater part of the first week in the month; and besides this, the wet weather has retarded the beneficio in the patio, and only four, instead of six, tortas will be washed. I still expect, however, to have 54 or 55 bars. You will have noticed, by the several reports of our underground agents, that, during the last month or two, we have had great difficulty in procuring the necessary supply of gunpowder. Amongst the measures I took on this occasion, and I sent one of the company's officers to Mexico, who had an interview with the President (Don Salas), to whom he described the great injury which the mining interest was suffering for the want of powder. The President, after listening attentively, promised to examine into the business—the result was, a few days afterwards, he issued a banda, declaring it free; so that we are now enabled to purchase it where it can be procured cheaply, or even manufacture it ourselves, if it be deemed prudent. At present there are few establishments making this article—we, therefore, continue to pay 24 rs. per lb., but I have no doubt it will very soon become cheaper. I beg to hand you enclosed bills on England for \$2007.—August (5 weeks): expenditure, \$67,206; returns, \$85,773—profit, \$18,567.

ST. JOHN DEL REY MINES.—Morro Velho, August 18.—Heads working 12 days, 67-31; of course, the repairs of the Lyon's stamps are the cause of the diminished number of heads working. The 15 heads went to work effectually on the morning of the 16th, and they are working very well—I expect they will soon make up for lost time. The supply of ore has been fair of late.

August 28.—Heads working during 28 days, 61-47—the supply of ore has been middling.

UNITED MEXICAN MINES.—Guanajuato, Sept. 24.—Mine of Rayas.—There is no favourable change in the workings of this mine; the ores generally have fallen off lately both in quantity and quality. The working of Santa Cecilia does not show any further improvement since my last, and the increase of water in the mine has deprived us of the working of San Simon. I enclose Mr. Glennie's report to the 24th instant. Annexed is the statement of produce and outlay for the last five weeks, compared with that of the five weeks ending August, the 15th.

Weeks.	Picked ores.	amt. sales.	Outlay.	Excess of Outlay.
Aug. 15.—Cs. 2532	.....	\$11,846 0 4	\$ 20,130 4 6	\$ 8284 4 2
Sept. 19. „ 2343	.....	9,422 1 4	18,994 1 7	9576 0 3
Cs. 149	\$2,423 7 0		\$1132 2 7	\$1291 4 1
Decrease.	Decrease.		Decrease.	Increase.

The decrease in the sales on joint account with buscones has been occasioned partly by a falling off in both the quantity and value of the ore extracted, and partly by the great increase in the sales of the mine of La Luz, which has attracted the buyers, and reduced the amount of the sales in all the other mines. The sales of La Luz have now reached an average of \$50,000 per week. The balance-sheet enclosed herewith of the ores reduced in the hacienda of Barrera, in the month of August, reduces the deficiency of the previous month \$6405 5 1 to \$4232 5 7—which sum will, I expect, be somewhat further decreased by the tortas delivered from Barrera, during the present month. The general debt of the mine remains, therefore, unaltered—viz.: \$682,592 2 3.

Quicksilver.—Since my last dispatch, I have received the remainder of my contract with the quicksilver mine of Guadalupe, 26 bottles. The first shipment from London, per the May steamer—Accon 80 bottles, (also sent to the mine) arrived in Guanajuato on the 19th inst. I beg your references to the enclosed statement of receipts and disbursements, showing an available asset of \$44,088 1 6, on the 19th of Sept., with a further asset of \$6915 3 2 in Treasury bonds, in the hands of our agents at Mexico.

Zacatecas.—The court may rely upon my keeping in view the San Acaslo claims; but I regret that I must again repeat the little probability there is of their receiving attention at present.

Remittances.—It having been decided, at a meeting of the principal remitters of specie in this city, that no present was a favourable moment for dispatching the amounts, the roads were cleared of robbers that they have lately been, and a good escort was obtainable; the 25th of September was appointed for the departure of the conductor (J. A. Guerrero), for Tampico. I have, therefore, remitted to our agents at that port 10 boxes, containing \$25,000 for shipment, per first steamer, to the order of the chairman of the court. As I have made provision for the payment of duties, freight, and charges, independent of this remittance, the sum of \$2500 will be shipped intact.—W. HENRY.

Report of the State of the Workings of the Mine of Rayas.

La Purisima.—No variation has taken place in the system pursued on this side of the mine. San Lorenzo.—These old workings, although gradually becoming exhausted, are still producing a small quantity of ordinary ores, which are not met with in any particular spot, but are scraped together from any points in which they can be found. Eight pairs of barren are employed by day, and an equal number by night.

San Simon.—The water has risen, and also the position of this point. The four pairs of barren that worked here by day have been removed to a pillar in the upper part of San Cayetano, where a small quantity of ore is met with. From the pit of San Pablo there is also a small extraction of good ores.

San Miguel.—In the pit of San Dario the narrow threads of ore, of good quality, referred to in my last month's report, have nearly disappeared, and the general produce is now of an ordinary quality. An end, opened to the north-west, has been communicated with an old working. There is a small extraction of common ore from the roof of San Dario, and also from San Pedro: 12 pairs of barren are employed by day, and an equal number by night.

Santa Cecilia.—Since the last report 790 varas have been driven in this cross-cut, in the same kind of ground as mentioned last month. No variation has been observed in the end to the south-east, in which four pairs of barren are employed as usual.

Santa Cecilia.—A slight investigation of the lode has been made at the point where the narrow band of ordinary ore was cut, but without any improvement manifesting itself—inasmuch as the lode beneath the band proved quite barren of ore: 4'40 varas have been driven in the end since the last report; and the only variation observed, consists in some small bunches of quartz, being met with, of a finer character to those found in San Cayetano. The point worked on joint account by buscones, referred to last month, continues in its improved state, without, however, producing any thing considerable. The other workings are in an impoverished state.

Some workmen lately employed on works preparatory to the formation of the railroad from Hetchley to Oxford, near Pouden Hill, in the county of Bucks, discovered a vein of coal, which, upon trial, was found to be of very good quality.

LAMHEROEE WHEAL MARIA MINING COMPANY.

At a meeting of adventurers, held at the offices of the company, 4, King-street, Cheapside, on Thursday, the 5th inst.

JOHN EDWARDS, Esq., in the chair.

The minutes of the proceedings of the committee since the preceding meeting having been read, the SECRETARY (James Crofts, Esq.) read the following REPORT.

Copy of a Letter from Capt. Tabo, dated November 2, 1846, to James Crofts, Esq.—“Agreeable to your request, I beg to hand you the depths of our shafts—engine shaft, 24 fm. 1 ft. 6 in.; Davey's shaft, 15 fms. 1 ft. 4 in. In Davey's shaft we have just reached the 1 lode, water considerably increased, engine working eight strokes per minute. Hopes by the end of this, or beginning of next week, to furnish you with the necessary information respecting the above lode. The ground in Hay's and Davey's shaft is much the same as last reported—strata of a beautiful clean killas, and congenial for copper. We have to sink in Hay's shaft about 8 fms., where we intend to cut pit, and drive south to intersect F lode. In Davey's shaft we expect to meet with J lode at, or about, 25 fms. from surface, supposing it should continue its underlie, judging from surface appearance. Number of men employed, including carpenters, smiths, engineers, pitmen, landers, and labourers, 14 in number, underground 30—making in the whole 38. Probable cost per month, about £207. I should like to clear up the old shaft where they rose the 1 lode; if you will allow me, I will take two of our men that are working on surface, to clear out the shaft, and examine the old men's workings: we need not increase hands.”

Report of the Finance Committee to the Meeting of Adventurers, held 5th November, 1846, at the Secretary's Office, 4, King-street, City, London, agreeable to Circular of the Secretary, dated 20th October, 1846.

It will be observed, from the report just read from the resident agent, that the engine-shaft requires to be sunk 7 fms. 4 ft. 6 in. previous to driving out the cross-cut at the 30 fm. level, to intersect the F, G, H, I, K, and L, or six southern lodes; while Davey's shaft will require to be sunk about 10 fms., when a cross-cut north will be taken up to meet that proposed to be driven from the engine-shaft. The monthly cost will in no way be increased, inasmuch as the men employed in the shaft will then be placed in the respective cross-cuts, so as to facilitate, as much as possible, the development of the mine, by intersecting the several lodes. It will be observed by Capt. Tabo's report, that the 1 (or J) lode has been intersected in sinking Davey's shaft, to which may, in some measure, it is presumed, be attributed the increase of water in the shaft. This lode having, however, been only just pierced, the committee have not at present the means of reporting upon it; but, from information acquired, they consider it may be prudent to explore it at the present depth, or shallow level, by driving on the lode. This, however, is a point which cannot be determined, until its indications are more fully developed. It is assumed that the lode, already referred to, will be intersected at about 25 fms. from surface in sinking Davey's shaft, according to its present underlie. The committee, having considered it prudent to limit the expenditure to the principal objects in view—viz.: sinking with as much facility as possible the two shafts, so as to arrive at the points from which the cross-cuts north and south will be driven. The expenditure, antecedent to the next meeting of adventurers, may be calculated at from 2004. to 2284. monthly, which they consider will be its full extent. The concurrent testimony of the several agents, who have inspected the mine, and the observations made on the spot by several members of the committee and adventurers, who have made personal inquiries as to the prospects presented, leave no doubt on the mind of the committee, but that the sanguine expectations before entertained will be realised, and which is more fully confirmed by the discoveries recently made in the adjoining shafts of Wheal Benny and Wheal Wilman; while the engine at West Wheal Maria is on the point of going to work; and as the lodes, doubtless, run through to Lamheroe sett, its value must be materially enhanced by any discoveries made in those immediately adjoining. The committee present to the meeting the usual balance-sheet of calls and expenditure, from which it will be observed, that the calls hitherto made, of 31. per share, amount to 61444; whilst the expenditure, or cost, to 30th September last reaches 58867. 10s. 3d. It will, therefore, be necessary to avail of the call of 11. per share (which wholly or in part, placed at the disposal of the finance committee at the last two-monthly meeting. The committee now resign their trust into your hands, and recommend the remodelling of the finance committee for the next two months.

The statement of accounts showed the amount of calls, amounting to 31. per share, 61444; to liabilities, 14990. 9s. 1d.—=76434. 9s. 1d.—By costs to end of September, 68877. 10s. 3d.; arrears of calls due, 3131. 5s.; balance of cash at bankers, 4422. 13s. 10d.—=76434. 9s. 1d.

The CHAIRMAN, in addressing the meeting, observed, that the committee would be happy to afford any additional information to the adventurers, beyond that conveyed in the report which had been submitted, and which, he believed, contained the principal points to which their attention should be at the present time directed—viz.: the prosecution to the operations in sinking the two shafts, with the view of driving a cross-cut to intersect the several lodes at a depth of 30 fms. from surface. The meeting would observe, that the present operations were confined to these two points, and thus limiting the expenditure, which he did not consider would exceed £207. to £230. monthly; indeed, antecedent to the next (two-monthly) meeting, the present balance at the bankers was, in his opinion, ample to meet the current expenses. It was, however, to be borne in mind, that the committee were under acceptance, which must be provided for, and hence the necessity of calling the attention of the shareholders present to the call previously made; but the period of payment of which had not yet been determined by the committee, to whom, however, full powers had been given. It would be, he might observe, more satisfactory to the committee, if the meeting would express their opinion.

Mr. DAVY, as one of the committee, fully concurred in the views conveyed by the chairman; he, as a member of the committee, considered that it would be very preferable for the proprietors to pass a vote, to justify them in making a call, or rather in prescribing the time and amount; they were there assembled, and he should be glad if a resolution, declaratory of their opinions, should be passed, and thus doubly arm the committee.

Mr. DUNNACK fully assented, and would at once propose that the call of 11. previously made, should be payable by two instalments—10s. per share being payable on or before the 7th of December; and the remaining 10s. at such subsequent period as the committee might deem fit.

The CHAIRMAN directed the attention of the meeting to a hand sketch which had been made, to render the position of the several lodes and shafts more clear to those who had not had an opportunity of personally inspecting the mine; he believed such calculated to give an accurate idea of the several workings, and the position of the shafts and lodes; whereupon a SHAREHOLDER submitted that such should accompany the report and accounts, which it was understood would be circulated among the adventurers.

Some desultory conversation ensued; but as no questions of importance were raised, and but little explanation rendered necessary on the part of the chairman, the meeting, after passing the several resolutions, which will be found in our advertising columns, and passing a vote of thanks to the chairman, separated.

CRADDOCK MOOR.—At a meeting of adventurers, held at Liskeard, on the 28th October, the accounts were presented, showing labour cost for July and Aug., 1887. 3s. 8d.; materials, 997. 8s. 5d.; balance of last account, 2131. 10s. 5d.—total, 5011. 8s. 6d.—By materials sold, 9s. 8d.; call made at last meeting, 3604; leaving balance against the mine, 1407. 19s. 8d.—The accounts having been allowed and passed, a call of 11. 10s. was made, payable at the Devon and Cornwall Bank. The following report from Capt. J. Nance was read to the meeting.—In consequence of an accident to our lift, we have been prevented from accomplishing the object at which we have been aiming—viz.: the taking down of the lode in the north shaft, which we anticipate will prove a good lode. In consequence of the lode having taken a more vertical dip, we were obliged to take down some ground, which would otherwise have prevented our following it. This we had nearly accomplished when the accident occurred, and we are, therefore, prevented from reporting upon it further; than that, as far as we have seen the wall, it is ore, and, at the point where it alters its underlie, there is a branch of ore 12 in. wide—this is about 2 fms. above the present bottom. The accident is now repaired, and the water is forking slowly, the floods having caused a great increase of water; and, as soon as it is cleared, we shall commence working upon the lode; the depth of this shaft is 24 fms. The south shaft is sunk 3 fms. 5 ft. in the past two months, and is now 15 fms. deep, and the lode in it is composed of quartz and peach, spotted with ore; there are also near it in the granite, and parallel with it, small veins of ore. The present price for sinking this shaft is 271. per fm.

GONAMENA.—At a meeting of adventurers, held at Liskeard, on the 28th Oct., the accounts were presented, showing labour cost for July and Aug., 3024. 4s. 4d.; materials, 2367. 4s. 6d.; balance of last account, 977. 4s.—=6357. 12s. 10d. By call made last meeting, 5127.—leaving balance against adventurers 1287. 12s. 10d.—The accounts were allowed and passed, and a call of 21. per share made, payable at the Devon and Cornwall Bank, Liskeard.

GREAT MICHELL CONSOLS.—At a meeting of adventurers, held on Thursday, the 5th inst., at the offices of the company, C. BAILEY, Esq., in the chair, the notice convening the meeting, and the report of Capt. Thomas Richards, of the 3d inst., having been read, a statement of the cost to the end of Sept., accompanied by the cost-sheets, amounting to 18025. 5s. 2d., which showed a balance of 5227. 5s. 2d. against the company, after giving credit for the call of 10s. per share made the 12th Jan. last, was submitted; when it was resolved that to liquidate the above balance, and provide for future workings, a call of 10s. per share be made, payable at the London office, on or before the 15th inst. [The captain's report will be found among our Mining Correspondence.]

SOUTH FRIENDSHIP WHEAL ANSE.—The meeting held on the 28th ult. (of which we gave a brief notice last week) was for the purpose of forfeiting some of the shares, on which the calls were not paid, and making a further call; as the following resolutions, which were then proposed and passed, will explain:—That all shares, having their calls now unpaid, be declared absolutely forfeited; that the same be now transferred into the name of the purchaser.—That a call of 10s. per share be now made, to be paid within 21 days into the banking-house of Messrs. Gill and Rundle, to the credit of the parer; and that a general meeting of shareholders be held at the count-house of the mine on the 28d of November.

SOUTH YEOLAND.—At a meeting of adventurers, held at Liskeard, on the 28th October, the accounts were presented, showing, as received on call made at last meeting, 1287; balance of last account, 157. 8s. 8d.; total, 1444. 8s. 8d.—By half costs of Yeoland Consols for July and August, 462. 1s. 2d.; Devon and Cornwall bank charges, 31. 6s. 10d.; leaving balance in favour of adventurers, 951. 13s. 8d.—The accounts were allowed and passed. The following report of Yeoland Consols, from Capt. T. Trelease, was read at the meeting:—Croker's engine-shaft is sunk about 52 fms. under the adit level. At the 30 fm.

level a lode was discovered therein, and explored on east of the said shaft about 26 fms., and also about 15 fms. west. In this distance it varied in width from 1 to 3 ft., consisting chiefly of peach and quartz, and in various places spots of yellow copper ore. The same lode was also discovered at the 50 fm. level, and extended on both east and west of the cross-course, in all about 6 fms. in length; but, with the exception of a little more than being found in it at this level, its contents were similar to those of the lode in the level above (80). From its character in both levels materially differing from that of G lode in the adit level, and its underlie being greater, we were induced to think we were not operating on the right lode (G); and, to prove this, it was judged advisable to cross-cut south. We drove accordingly about 8 fms., and cut a lode, which has been extended on west about 2 fms. At the point where first discovered, its width was about 10 in., showing a lively looking spar, mndic, &c., with good spots of yellow copper ore; its underlie is from 12 to 15 in. per fm. From these circumstances, I do not much hesitate to say that the lode in question is the real G, and at present more likely to prove productive than the former lode. In order to see more of it, a cross-cut is now in driving some 26 fms. farther east than at the point where it is already discovered; and as we have now a full supply of water for the pressure engine, we shall probably drain the 50 fm. level in about 10 days from this date, from whence also we shall be able to cross-cut to the new lode.

TOKENBURY.—At a meeting of adventurers, held at Liskeard, on the 29th Oct., the accounts were presented, showing labour cost for July and August, 2897. 0s. 11d.; materials, 897. 4s. 2d.; half of Yoland Consols costs, 462. 1s. 2d.; balance of last account, 1057. 13s. 2d.; total, 5296. 10s. 6d.—By sale of materials, 37. 12s. 2d.; call made at last meeting, 5122. leaving balance against the adventurers of 142. 7s. 3d. The accounts having been examined and passed, a call of 41 per share was made, payable at the Devon and Cornwall Bank, Liskeard. The following report from Capt. T. Trelease was read to the meeting:—The 65 fm. cross cut is extended south from Crouch's shaft about 32 fms.; no particular change therein since last report, two months since. The 65 north is driven about 26 fms. from Crouch's shaft; no discovery has been made in this end since last report; probably there may be 6 or 8 fms. more to drive to cut E 4 lode. At the same level (65) E 3 lode is extended on west from the cross-course about 7 fms.; its width is about 1 ft., consisting chiefly of peach and quartz. The same lode, in the level above (55), is extended east of the cross-course about 14 fms., and has yielded ore throughout this distance more or less, and altogether about 4 tons. The lode in the present end is now about 18 in. wide, very rank of mndic, mixed up with good stones of ore. At D shaft, the 20 fm. level is driven on D lode about 60 fms. west. At present the appearance of the lode in the end more encouraging than they have been for the last few fathoms driving—the width being now about 2½ ft., consisting of peach and spar, and spots of ore therein. At the same level (20), E lode is extended on east of D shaft about 34 fms., where it intersected Bath's cross-course, from which we have driven south, and again discovered E to the east thereof, and found it a kindly encouraging lode about 18 in. wide. The driving on it is at present suspended, as we are continuing to explore on the cross-course south for the purpose of cutting D lode. The distance from E to D was supposed to be about 14 fms., above 12 of which are already driven. In progressing through this 12 fms. gossan, &c., have been met with for 10 or 12 ft. in length, but in a very confused and unsettled state, forming nothing of a regular lode; and though suspicious whether this will not turn out to be D lode, we shall, for further proof, continue the said cross-cut 2 or 3 fms. further, especially so as these gossans do not correspond with the character of the lode in the adit level directly over.

WEST CARADON.—At a meeting of adventurers, held at Liskeard, on the 28th Oct., the accounts were presented, showing amount received for copper ore, 4907. 3s. 3d.; materials, 827. 9s. 10d.; balance of last account, 2557. 13s. 2d. = 7497. 7s. 3d. By labour cost for July and August, 2795. 7s. 10d.; materials, 1148. 11s. 11d.; lord's dues, 803. 17s. 6d.; dividend, 6½ p. per share, 166.4. leaving balance in pursuer's hands of 1585. 6s.

WEST UNITED HILLS.—In our last, we gave a brief report of the proceedings at the meeting of shareholders, held on the 22d Oct., but, having since received the official statement, we now append some further particulars, and the captain's report entire—a course we shall always readily adopt when favoured with the necessary copies from the agents. The accounts presented were for April, May, June, July, and August—showing balance due from adventurers to pursuer, 1250. 14s. 11d.—which, having been examined, were allowed and passed, and a call of 17 per share made, payable immediately, for liquidating above balance, and for further prosecuting the mine. It was also resolved, that the operations for the present shall be confined to driving the cross-cut north, and the mndic lode east, at the adit level.—The following report, from Capt. John Lean, was given at the request of the pursuer, for the satisfaction of the distant adventurers, the managing agent of the mine being unavoidably absent at the time of the meeting:—By your desire, I inspected West United Hills Mine, on Thursday the 22d inst., and beg to send the following as my report:—The adit level has been extended several fathoms west of the western shaft, where the lode is large and promising, composed of spar, peach, and mndic, with some rich copper ore, ground soft for driving; there is a large lode in the adit east of the cross-cut, or east of the eastern shaft, a continuance of the same lode as the west end, and nearly alike in character; about 60 fms. east of this end there is a cross-course, and it would be desirable to see the end extended east to this cross-course, which will be carried out; the mines south of this set, which have been productive, and whose lodes are parallel with West United Hills, have made a great quantity of copper around; near the cross-course before alluded to, is a cross-cut being driven north at the adit level, to prove the north part of the set, two lodes are known, and others may be there; there is one within about 20 fms. of the present adit end, should it continue its present underlay; about 70 fms. from the present end, or 50 fms. from the above-mentioned lode, a lode has been discovered by extending a shallow adit, this lode is very promising indeed; on the whole I think the set a fair speculation.

WEST WHEAL MITCHELL.—A meeting of adventurers was held at the office of the company, Old Broad-street, on Thursday, the 5th inst.—C. BAILEY, Esq., in the chair. The notice convening the meeting, and the report of Capt. T. Richards, dated the 3d inst., having been read, it was resolved, that the suspension of operations therein reported be approved, and that the workings be finally discontinued. A statement of the accounts, accompanied by the cost-sheets—showing a balance of 2212. 12s. 6d., arising from the last call, was presented to the meeting. It was stated to the meeting, that the lessees had obtained a sett on Rough Tor Moor, from Mrs. Sarel; and that it was proposed that an interest in the same should be offered to the shareholders in West W. Mitchell, according to their *pro rata* holding; when it was resolved, that the offer of the leases be accepted; that the sett obtained on Rough Tor Moor be called West W. Mitchell; that the shareholders in West W. Mitchell be entitled to 1-250th share in the same for every 1-250th share they hold in West W. Mitchell, on their signifying their intention, in writing, to affirm the same on or before the 1st proximo; and that the balance of 2212. 12s. 6d. be transferred to the credit of the West W. Mitchell Rough Tor adventurers; and should any adventurer in West W. Mitchell decline to assume his shares in West W. Mitchell Rough Tor, he shall be entitled to his *pro rata* portion of the above balance in cash.

WHEAL HOPE (Zennor).—At a meeting of adventurers, held at Liskeard, on the 29th Oct., the accounts were presented, showing labour cost for four months ending August, 2347. 8s. 1d.; materials, 611. 13s. 4d.—total, 2958. 1s. 5d. By call made at last meeting, 2184. balance of last account, 221. 13s. 4d.; leaving present balance against adventurers, 557. 8s. 1d.—The accounts were allowed and passed, and a call of 24 per share made, payable at the Devon and Cornwall Bank.—The following report was read to the meeting:—The 60 fm. level is driving east of the engine-shaft by six men and a boy (at 6½ 10s. per fm.), in granite, towards the kyllas; there are indications of being very near the kyllas; the lode when last taken down consisted of mndic, iron, spots of ore, &c.; this lode has been driven about 80 fms., the lode throughout has been large, 8 to 6 ft., and seldom without some ore. We hope the quantity of ore will increase when we reach the kyllas. The new lode, the course of which has been 80° west of south, is now taking more of a north and south direction; it is at present split by a horse of kyllas in the end, but before this it was about 2 ft. wide, consisting of spar, gossan, iron, and spots of ore; it is now driving at 8½ 10s. per fm., by four men and two boys, and we soon expect to intersect an east and west lode; the workings on this lode are only at the adit level, and in which, 40 to 50 fms. back from the present end, we passed through a little bunch of grey ore. The productive lodes of Levant and Botallack being in a north and south direction, and in the same kind of ground, we are hoping that this lode will turn out well. The water and stuff continues to be drawn very cheaply by a water-wheel.

WHEAL MARY CONSOLS.—At a meeting of adventurers, held at Liskeard, on the 29th ult., the accounts were presented, showing labour cost for July and Aug., 5062. 10s. 6d.; materials, 708. 2s. 2d.; balance, last account, 1190. 17s. 11d.; total 2465. 10s. 6d.—By sale of materials, 837. 8s.; call made at last meeting, 12802. leaving present balance against the mine of 10022. 2s. 6d.—The accounts were allowed and passed, and a call of 42 per share made, payable at the Devon and Cornwall Bank, Liskeard.—The following report from Capt. J. Nance and H. Taylor was read to the meeting:—Since our last report, our operations upon Wheal Mary lode have not undergone any material alteration, with the exception of the 50 fm. level going west, and the 60 fm. level going east. The 50 fm. level went has been (during nearly the whole of the intervening period), productive of good stones of ore, and is improving as we approach under where there was a good course of ore in the 40 above. Within the last few weeks the 60 fm. level east has also improved, and is now productive of some stones of ore. The new south lode in the western end of the 25 fm. level, is about 18 in. wide, and composed of quartz, peach, mndic, and good stones of ore, and underlying south about 12 to 14 in. per fathom. In the eastern end, at the same level, it is about 9 in. wide, containing good stones of ore throughout, but more particularly towards the bottom. This level is extended on this lode 20 fms., and has been productive of ore for nearly the whole length, but particularly for about 7 fms. long, it having passed through a good course of ore of that length

18 to 24 in. wide. The cross-cut driving south at the 25 fm. level, from the count-house shaft towards the new south lode, is extended 34 fms., leaving about 6 fms. more to drive to intersect it, supposing its bearing to be parallel with Wheal Mary old lode. This cross-cut is about 100 fms. west of the cross-cut which first intersected this lode. The 50 fm. level cross-cut driving south towards this lode has been extended 10 fms. since the last meeting, through ground rather hard. The cross-cut driving north, at the 25 fm. level, towards Wheal Sisters lode, appears to be approaching near to it; the kyllas, through which it is now being driven, is very much softer, and its appearance more congenial for mineral than it has yet been. The 70 cross-cut driving towards the same lode is not extended so far north as the 25, and the ground is much harder, but we expect it will soon become more easy for driving as it approaches the lode. Our opinion of the concern is still unchanged: the present appearance of the lode now going down are highly encouraging; and with the number of side lodes still unexplored and entire, and the facilities which we have for exploring them, we cannot but think that it will make a highly remunerative speculation. We expect to sell about 50 tons of ore in two weeks.

WHEAL SISTERS.—At a meeting of adventurers, held at Liskeard, on the 29th Oct., the accounts were presented—showing labour cost for July and August as 6482. 18s. 11d.; materials, 1657. 19s. 4d.; lord's dues, 268. 4s. 8d.; balance of last account, 3167. 11s. 9d.; total amount, 11382. 4s. 8d.—By sale of copper ore, 4872. 8s. 2d.; call made at last meeting, 5122.—leaving balance against the mine of 2077. 11s. 6d.—The accounts having been allowed and passed, a call of 22 per share was made, payable at the Devon and Cornwall Bank, Liskeard.—The following report from Capt. J. Nance was read to the meeting:—Since our last meeting we have, agreeably to the resolutions then entered into, purchased a good second-hand drawing machine, with pumps, &c., complete. The erection of this machine is now in a very forward state, and in a few days will (I hope) be completed. In my last report, I stated that, "in consequence of the present slow and expensive mode of drawing and crushing, our operations are very much retarded." This has been particularly the case during the past two months, and I now beg to congratulate the shareholders upon having nearly overcome these obstacles. The whole of the machinery is of good quality (nearly equal to new), and sufficiently powerful for the effectual drawing and crushing, and will be a great auxiliary to the future vigorous and economical working of the mine. The engine-shaft is completed to the 61, and the cross-cut driven and the lode intersected. It is about 3½ ft. wide, composed of capel, quartz, mndic, and stones of ore; it is not extended on either east or west, being only just cut through. In the 51 east the lode is 20 in. wide, and composed of quartz, mndic, and good stones of ore; the lode in the slopes, in the back of this level, is 3 to 4 ft. wide, but rather coarse in quality; the lode in the western end, at this level, is much improved since the last report—it is now got under the dip (being a little west) of the bunch of ore which we had in the 51 and 41 fm. levels; in the end it is about 20 inches wide, 8 in. of which are solid yellow ore of good quality, and the remainder spotted with black and yellow ore throughout. In the 41 and east the lode is 3 feet wide, with a bunch of ore in it 9 in. big, and the remainder spotted with ore throughout; and in the western end, at this level, it is about 16 in. wide, spotted with black ore and a quantity of mndic in it; a few fathoms behind this end there is a good bunch of ore 6 fms. long, and for a further 10 fms. in length; it is composed of good stones of ore, imbedded in a large course of mndic; the end is now driven 3 fms. to the west of the cross-course; the lode continued very good to the cross-course, from eastward, and there is a bunch of black ore to the west of it about 6 ft. in length. The 51 fm. level, driving west, is within 16 fms. of the cross-course; and judging from the present appearance of the lode, together with a good lode going down in the level above, we may reasonably expect to find a great deal of ore at this point of our operations.

LIABILITY OF MINING ADVENTURERS—WHEAL PROVIDENCE.

COURT OF COMMON PLEAS—NOV. 4.
RICKETTS AND ANOTHER v. BINK AND ANOTHER.—In this case Mr. Crowder, Q.C., moved for a rule nisi for a new trial, on the grounds of misdirection, and also that the verdict was against evidence. The action was tried before Mr. Baron Plattin Cornwall, at the last assizes, and the jury found a verdict for the defendants. The plaintiffs in this case are bankers at Truro, and sought to recover the balance of their account with the adventurers of the Wheal Providence Mine, of whom the defendants are two; and the question in this case was as to the liability of the defendants to the bankers for this balance of account, which amounted to 8664. The banking account was opened at the end of the year 1844, by a person named Alexander Robinson, who was an adventurer in this mine, and by his son, who was also the pursuer and an adventurer in the mine. For some time the mine was worked very profitably. The individual who went to the bank, and to whom the pass-book was handed, was Alexander Robinson, the elder. The defence was, that the defendants were not liable. There was no doubt that the defendants were adventurers, taking the profits of the mine; but it was contended that, in point of law, none of these co-adventurers had authority to borrow money to bind the others. The money in question had been obtained from the bank for machinery by Robinson, which had not answered. This was the evidence. On this defence, the learned judge who tried the case directed the jury that there was a difference between partnerships of this sort and ordinary partnerships, and left it to the jury to decide whether Robinson had express authority to borrow this money on the credit of the defendants. The learned counsel proceeded to contend that the relation of co-adventurers in a mining concern was sufficient to authorise a co-adventurer to pledge the credit of the others. "Dickenson v. Valpy," reported in 16 Barnewell and Creswell, page 128, only laid down that no partner in such adventure could bind the others by a negotiable instrument. He was not aware that that authority had been extended by any subsequent decision, but on the contrary, in support of this position the learned counsel quoted "Trevelyan v. Bonney," 6 M. and W. 461; "Hawthorne v. Bonney," 7 M. and W. 588; "Crawshaw v. Meale," 1 Swanston, 493. The last was authority to show that a mining concern was a trading partnership.—Rule nisi granted.

WHEAL CURTIS.—This company, which we have noticed on two previous occasions, is, we are informed, progressing satisfactorily, and capitalists are beginning to appreciate the position and prospects of the mine—the shafts being sunk to 60 fms., and various levels opened; the mine is ready, on the erection of an engine, to proceed to immediate returns. That the mine is one of considerable promise, may be inferred from the fact, that 10,0004. worth of ore has been raised from shallow levels; and from the 12th of August, 1841, to January, 1844, 2½ years, the ore sold amounted to 45612. 12s. 8d. Since our last notice, considerable progress has been made. The new shaft is already sunk to add within the estimate; the engine-house, still in course, is far above foundation; excellent granite stones procured and delivered on spot, for supporting the beam of the engine; masses of other stones quarried and delivered on the spot for other parts of the buildings; the blacksmith's shop and counting-house completed. Of the five other lodes of the Wheal Curtis set, before alluded to, one has been explored, and found even superior to that, which is especially the subject of this and the former notice. This is called the Charlotte lode; it is about 50 fms. distant from the site of the engine, which can work it also by means of flat-roads. The shaft of the Charlotte lode is sunk 20 fms., so that a prospect now presents itself of greatly increased value. It is fully expected that the steam-engine will be at work by the 1st of January, next, and that ore will be ready for sampling in two months afterwards. We understand that 1500 of the shares have had the deposit paid upon them, and a large portion of the remainder allotted.

VICTORIA MINING COMPANY.—This company is formed for the purpose of working the mine formerly known as Wheal Fortune Consols, with other setts situated in the parish of St. Stephens Braunwell, in Cornwall, adjoining St. Denis parish; they are held under a lease of 21 years, and at 1-15th dues. The combined setts are very extensive, and are considered highly promising; eight lodes are known to exist, some of them from 4 to 6 ft. wide; the reports of several experienced mine agents are of a highly satisfactory and encouraging nature. Capt. J. Chynoweth states, "the sett extends about 400 fms. on the course of the lode; the sett is really a very desirable one, and it is my opinion that it is one of the best tin setts in Cornwall; I hope you will get to work upon it before the winter commences; it is a fine piece of ground for mining, and I never was more taken up with any sett I have seen."—On the 20th ult. he writes:—"I congratulate you and all concerned on the fine discovery that has just been made in Wheal Fortune Consols Mines; you well know that we have been bringing home a lobby to intersect the counter lodes, from which we have discovered our main object. The lode is from 4 to 5 ft. wide, and of good saving tin stuff throughout the lode, and returns can be at once made when our shaft is down 10 fms. Shares will be sought after in the Wheal Fortune Consols Mines beyond all other mines in Cornwall."—And Capt. Julian, on the same date, writes:—"I have great pleasure in informing you, that yesterday, about 4 p.m., our men cut the lode at Wheal Fortune Consols, which we were seeking in bringing up the lobby, and found it just in the corner, running about a mile in length in our sett, and with nobody to interfere with us. The lode is altogether nearly 12 ft. wide, four or five of which being excellent work, some stones being nearly solid tin, and is the best discovery that has been made for many years in this neighbourhood. They also discovered another lode in the south-eastern part of the mine, and went down on the back of the lode and found good stones of tin; and, with machinery to which we could attach stamps, we could return tin immediately.—The mine is divided into 10,240 shares, of 2½ each, deposit 12 per share; and it is fully expected that no further calls will be necessary. Liability is to be limited to the amount of shares held; any shareholder can relinquish his shares, and determine his responsibility at his option; and the meetings are to be held half-yearly. There are quarries of granite on the setts, which may be worked advantageously; and it is considered that, with judicious management, this property will make an ample return to the shareholders.

WEST WHEAL MARIA.—Notices have been received from the secretary (J. Bayley, Esq.), convening a special general meeting of the shareholders for Saturday, the 14th inst., for the purpose of viewing the steam-engine and machinery (now at work)—to receive a report from the committee—to audit and pass the accounts—to proceed to the appointment of the permanent officers of the company—and to decide on the mode and scale of working, for most speedily and effectually returning the produce of the mine.—The engine commenced her duty on Friday last, and is stated to work admirably.

TO THE EDITOR OF THE MORNING POST.
SIR,—The inhabitants of this quiet place, especially those connected with mining enterprise, have been quite excited within the last week by the circulation of a prospectus headed "The North Wales Silver, Lead, Copper, and Gold Mining Company," in which it is set forth that gold to a most extraordinary extent—14 to 17 ozs. to a ton of gossan—exists in this neighbourhood, on property leased by Mr. James Harvey, of this town, who, it appears, has consented to transfer his interest in the setts (collectively about 1000 acres) for the sum of 50,0004. You can, therefore, well suppose that the whole locality is on the tipple of excitement, and every body looking out for an equal quantity of the precious metals on his property. If Mr. James Harvey, or any inhabitant of this place, should have an opportunity of realising a fortune fairly and equitably, all here will be delighted, and no one more so than your humble servant; but as we are natives of a country which has, until lately, been much neglected by capitalists, and requires Saxon energy to develop its resources, it is incumbent on all, in an interested point of view, not to allow of a shadow of delusion or misconception, more especially in matters which must entail the expenditure of large sums. I, therefore, do not hesitate to express my belief, that the existence of gold to the extent described is at least doubtful, arising, perhaps, through imperfect calculations being made from assays of isolated portions of gossan. That this locality is the centre of an immense mineral district, no one will deny, but its legitimate products are lead, copper, and slate, and to make which marketable, English money is fast coming in, to the no small benefit of the community, as well as to the profit of those embarking in it. Let capital, therefore, be directed to legitimate sources; and pray, Mr. Editor, call the attention of your readers to the folly of being led astray in the expectation of realising a rapid fortune. The mining world looks to your columns for useful information on all metallurgical subjects, and, therefore, I take the liberty of addressing you on the present occasion. There are no London names, nor indeed any committee attached to the prospectus, other than that of Mr. Benjamin Rankin, a stockbroker, residing in Tokenhouse-yard, who may probably be able to furnish you with the detailed information as to the property and prospects of which we, in the vicinity, are ignorant. This is comparatively a maiden country, with respect to actual mine workings on an extensive scale. Capital properly laid out will regenerate the whole, and prove it to be, what Nature has made it, one of the most valuable districts of the empire; but capital sunk in endeavouring to realise immense wealth by the production of gold will not only entail loss on those who so embark in it, but check the exertions of North Wales to keep pace with the onward movement of the principal generalities to unbounded prosperity.—(Adm. Lows: *Zealously*, Oct. 31.)

[We perfectly agree with our correspondent, in the belief that it is purely chimerical to suppose gold can be found to the extent described. It is, no doubt, true that gold has been extracted from the gossan found in the mine set leased by Mr. Harvey, but it is equally the fact that the precious metal can be produced, more or less, from almost every description of gossan, or ferruginous substance. If Mr. Harvey can make it remunerative to bring gold to market, 50 other landlords can forthwith do the same, so that there will speedily be no lack of the precious metals to fill the coffers of the Bank of England, and, in defiance to any threatened derangement of the exchanges by the exportation of specie, which the wisdom of the Legislature has rendered now necessary to furnish, the country with the requisite articles of consumption. A sample of gossan may be found to yield, on an average, 14 to 17 ozs. of gold to a ton, as assayed for Mr. Harvey; but, to produce those 14 or 17 ozs., the whole ton must be made up of the same description, and be equally rich with the sample. We have ourselves lately seen a small piece of gossan yielding 35 per cent. of silver, which, estimated at only 4s. per oz., would be equal to 17924. to a ton of gossan; but it does not appear that any quantity has yet been found so rich, although there is a greater probability of the production of silver than of gold, to a remunerable extent. This came from the same locality in which Mr. Harvey's gold mine is situated, so that those who have secured leases of setts where gold exists may truly consider themselves fortunate. We believe, however, we are not incorrect in our views, when we recommend the public merely to regard the appearance of gossan on the surface as a very strong, indeed almost a certain, indication of the existence, in depth, of copper or lead; and the stronger the indications, so may the deposit of metal be calculated upon. Public attention has been much directed to Merionethshire and Cardiganshire within the last few years, in reference to mining, and it seems to be acknowledged to be a district of great mineral deposit, though consisting almost entirely, as our correspondent remarks, of lead, copper, and slate. It is, therefore, to be hoped, in a national point of view, that no schemes will be brought forward to discourage the legitimate enterprise, which is so desirable for the general improvement of this mountainous country, and we may say, as tending to the comparative civilisation of the working population by the introduction and more universal adoption of the English language. A prospectus of the proposed company was forwarded to us some time since, but it being in a perfectly crude state, without the names of any committee or executive, we did not consider it necessary to make any mention of the matter. Indeed, we thought it had reference to some delusory project, and could not understand why it was sent to us, for we observed that the date of the assays of this gold deposit was as old as the spring of 1841.]—Editor: *Morning Post*.

TO THE EDITOR OF THE MINING JOURNAL.
SIR,—Observing a letter in your last week's Number from a correspondent, remarking on the imperfect state of your share list, I beg to suggest for that gentleman's information, that had he exercised but a prudent, and, I would add, the necessary precaution, of inquiring of some respectable mining share agent the price of these, or other, shares, he would readily have ascertained the market price, and thus have saved himself from gross imposition.—The price of West United Hills, as quoted in the *Journal* of last week, is about the limit generally given by the vendors from the county, although I had instructions last week to sell these shares at 30s. per share, inclusive of a call of 20s. made on the 22d ult. (which meeting you published in Saturday's Number); and my order did not limit me to that as the minimum price. If it were of any satisfaction to your correspondent, I am prepared to show him, or any other person, my instructions any day I may be favoured with a call, while I am at all times ready to furnish information to your subscribers. WILLIAM TREBERT.
Thredneedle-street, City, Nov. 5.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, 8a. Sunday morning, Twelve o'clock.	
Bank Stock, 7 per Cent., 204 1/2	Belgian Railway, 41 per Cent., 94 1/2
3 per Cent. Reduced Ann., 93 1/2	Dutch, 94 per Cent., 59 1/2
3 per Cent. Consols Ann., 94 1/2	Brazilian, 5 per Cent., 85 1/2
3 per Cent. Ann., 94 1/2	Chilian, 6 per Cent., 91 1/2
2 1/2 per Cent. Ann., 93 1/2	Mexican, 5 per Cent., 91 1/2
Long Annuities, 94 1/2	Spanish, 5 per Cent., 91 1/2
India Stock, 10 1/2 per Cent., 257	Ditto Deferred, 12 1/2 per Cent., 91 1/2
3 per Cent. Consols for Acc., 94 1/2	Portuguese, 5 per Cent., 91 1/2
Eschequer Bills, 10004., 13 1/4 p.m.	Russian, 5 per Cent., 91 1/2

MINES.—During the past week a considerable animation has appeared in the mining share market: this we anticipated from the appearances presented for the last fortnight, and we trust the revival will continue. We have for some time past adverted to the opportunities afforded to purchasers by the lowness of the quotations, which we have been incessantly to furnish for many months past; and we sincerely hope that parties, availing themselves of the present prices, will realise their fullest expectations, who will, no doubt, be amply remunerated for their investments. Several mines have improved in their prospects; and, from the communications of several of our correspondents, we may reasonably calculate on more important discoveries before our next publication.—The following shares have changed hands—although we are advised that many others have been transacted, which, from the closeness of sellers, in withholding the nature of their business, we are unable to particularise at present.—Wheal Concord, Llanberis, Wheal Walter, Fortescue, East Crowndale, Deyn and Courtney, Wheal Morris, Wheal Gill, Callington, Holmbush, Tarn, France, Treham, Mary Ann, Trevelyan, Arwen, Condurrow, Lewis, Finocross, North Boscare, Ting Tang, Cleveland, Wheal Fortune Consols, Buckle, West Wheal Wheel, Trevelyan, and Barriar, South Wheal Francis, Wheal Mary Pagan, and Wheal Louisa. In foreign shares the business done has been in Bolanos, Allen, and Santiago; but the principal object of attraction appears to have been the Real del Monte stock—red and black debentures have advanced on former quotations, whilst the loan notes are inquired for with anxiety. Cocoa has been done at 64. We have been informed, that an improvement has taken place in Great W. Mitchell, and that 44 per share has been offered for 180 shares, and refused.

RAILWAYS.—In the railway share market a tendency has exhibited itself towards improvement in most descriptions of established lines—these particularly of the North of England and Scotland have advanced in price: Midlands had, at one period, increased 3 to 4 per share; and in Scotch lines considerable business has been done. Towards the end of the week less business was done in heavy shares, but prices have remained firm.

EAST ANGLIAN LINE.—These lines have been leased to the Eastern Counties Company at a minimum guarantee of 5 per cent., with 2 per cent. less dividend than that paid to the Eastern Counties.

MEETINGS.—The following meetings have taken place during the week:—NORTH BRITISH: resolved to abandon the Edinburgh and Perth line.—WOLVERHAMPTON, TATNAY, and LUDLOW: a general meeting to consider the propriety of again applying to Parliament, to carry out the project. The general feeling was adverse to the proposal. It was stated that Capt. Richardson had been formally voted out of the direction; the whole of the circumstances connected with the case were gone into, and a great deal of ill-sounding discussion was entered into, which will probably form matter for judicial inquiry.—LONDON AND NORTH WESTERN: special meeting, to consider the propriety of ratifying the agreement with the Birmingham, Lichfield, and Manchester, and Rugby and Leamington Companies: the agreements in both cases were ratified.—CHESTER AND BIRKENHEAD: special meeting to empower directors to borrow money to form line to docks; it was agreed to borrow 100,0004.—LONDON, HOLBORN, AND WESTERN: a meeting at Brentford, pledging themselves to support the line.—A very full board-meeting of the London and North Western direction took place on Thursday, at the Queen's Hotel, Birmingham, on the subject of the contemplated offer by that company to purchase, lease, or make some arrangement with the Birmingham and Oxford Junction line. The decision, if any was arrived at, was kept a profound secret.—EAST COAST: under Disolution Act—number of shares present, 2800; for dissolution, 280; against, 2400.—MIDLAND: for raising additional capital for the works under consideration, granted by Acts last session, which would in all amount to 2,367,0004.; agreed to.—MANCHESTER AND LANCASHIRE: to alter shares from 20s. to 8s. 2s.—the line having been shortened, and the capital reduced.—EASTERN: for raising additional capital for the works under consideration, granted by Acts last session, which would in all amount to 2,367,0004.; agreed to.—MANCHESTER AND LANCASHIRE: to alter shares from 20s. to 8s. 2s.—the line having been shortened, and the capital reduced.—EASTERN: for raising additional capital for the works under consideration, granted by Acts last session, which would in all amount to 2,367,0004.; agreed to.

The Birmingham and Oxford Junction line is to be amalgamated with the Birmingham, Wolverhampton, and Dudley Company.—The electric telegraph is being laid from the Nine Elms station of the South Western Railway to the Strand; and also from Eastern Counties line to the Royal Exchange.—The Waterford and Limerick is to be put under immediate course of construction to the extent of 30 miles.—The Eastern Counties Company are surveying a new line to York.—An arrangement has been made for leasing the South Wales line to the Great Western Company; and at the meeting yesterday, the plan suggested by the directors was unanimously adopted. The Shropshire Union is to be leased to the North Western Company, with a guarantee of 5½ per cent., and a dividend of surplus profits.—The South Western and Brighton Companies have settled their differences with regard to the Direct Portsmouth line. An Act is to be applied for next session; both companies to have a specified joint interest, but no amalgamation, as such course would meet with opposition from Government.—The powerful eight-wheel passenger engine, now constructing at the Swindon station of the Great Western Railway, will not be completed during the present year.

PRICES OF MINING SHARES.

BRITISH MINES.

BRITISH MINES—continued.

Shares.	Company.	Paid.	Price.	Shares.	Company.	Paid.	Price.
1024	Alfred Consols	41	40	124	South Wh. Francis	47	160
235	Andrew and Nangle's	50	30	256	South Wh. Hope	—	5
1000	Barrostown	44	27 30	1000	South Wh. Maria	34	2
4000	Bedford	23	32	256	South Wheel Rose	114	3
128	Besore Lead Mine	14	30	10000	Southern & Western Irish	1	1
320	Birch Tor Tin Mine	104	14	156	St Austell Consols	7	15
8000	Blackheath	50	40	94	St Ives Consols	—	600
256	Boltonwick	—	30	1000	Stray Back	42	50
100	Boltonwick	115	320	9600	Stray Back	—	30
120	Brewer	—	5	1024	Tary Consols	18	3
10000	British Iron, New Regis.	40	19	6000	Tincroft	7	110
—	Ditto ditto, scrap	10	15	256	Ting Tang	89	20 30
138	Bundick Consols	57	43	138	Tobekbury	124	154
100	Enoch Crutcher	70	45	206	Trohan	—	160
1000	Callington	19	54	1024	Trehawney Consols	14	32
256	Caradon Consols	45	25	5000	Trevelyn Consols	6	35
256	Caradon Copper Mine	13	11	256	Trenow Consols	—	25
256	Caradon Mines	13	84	96	Trenow Consols	10	225
256	Caradon United	24	12	120	Trehellan	5	120
256	Caradon Wh. Hooper	12	7	120	Trevelyan and Barrier	61	110
1000	Carn Breu	10	100	256	Trowallack	—	15
114	Charlestown	—	200	128	Trowallack	12	254
166	Cheveland	9	74	4000	United Hills	5	3
1900	Combarlin	58	47	100	United Mines	300	880
1000	Combarlin	4	2	256	Wellington Mines	15	50
5000	Con. Treston Mining	36	40	128	West Basset	48	30
128	Coudour	21	60	128	West Cargill	20	900
2560	Cook's Kitchen	—	4	128	West Cargill	2	12
1000	Copper Bottom	1	5	512	West Fowey Consols	40	35
1024	Cooleen	41	20	—	West Kewick Consols	—	32
240	Cradlock Moor	15	24	256	Wheel Kewick	4	6
128	Croog Brava	120	300	256	West Providence	—	10
500	Cubert Mine	12	30	200	West Scton	—	50
7100	Derwent	84	5	120	West Trehellan	5	25
1024	Devon County Con.	—	3	256	West United Hills	4	3
1000	Dhurode	21	15	3845	West Wh. Fendlip	71	6
128	Dolcoath	—	40	2560	West Wh. Maria	1	2
10000	Durham County Coal	45	5	206	West Wh. Shepherd	—	6
256	East Alvenney	3	10	256	West Wh. Talgas	214	8
112	East Caradon	40	40	256	West Wheel Treasury	14	8
2048	East Crowdale	34	2	240	Waterlake	3	3
128	East Pool	5	20	6000	Wicklow Copper	5	16
128	East Relistall	16	17	184	Wheel Adams	41	30
8000	East Relistall	—	17	1000	Wheel Agar	—	10
—	East Wheel Albert	1	3	256	Wheel Allen	10	8
91	East Wheel Coffey	—	575	128	Wheel Almond	13	2
256	East Wheel Fortune	14	3	256	Wheel Allen	—	4
256	East Wheel Kitty	—	3	368	Wheel Anderton	104	114
128	East Wheel Rose	50	1100	128	Wheel Ann	—	50
123	East Wheel Scton	24	12	128	Wheel Arvore	2	8
512	Fowey Consols	—	40	256	Wheel Bencove	—	9
20000	Galsnied Iron Co.	10	8	256	Wheel Byron Consols	—	150
1000	Gen. Mining Co. for Ire.	1	1	126	Wheel Clifford	—	150
1000	Goldolph	—	1	1024	Wheel Gwenny	64	6
256	Gonemana	21	85	512	Wheel Elizabeth	24	3
128	Gover	23	200	256	Wheel Fortescue	41	6
244	Graumber & St. Aubyn	—	25	2048	Wheel Frederick	3	2
100	Grat Consols	1000	400	384	Wheel Franco	25	28
256	Grat Callenock Moors	114	12	512	Wheel Fortune Consols	1	4
2560	Grat Michell Consols	2	2	256	Wheel Gill	194	18
256	Grat Resunga Moor	14	3	128	Wheel Harriet	45	48
512	Gr. Wh. Hough Tor Con.	1	22	2048	Wheel Howell	13	11
1000	Gullong	—	1	1024	Wheel Kerdall (Zenur)	6	40
1000	Gunnia Lake	14	3	256	Wheel Kerdall	114	5
1000	Hasson	14	3	256	Wheel Louisa	74	10
1000	Harrowbarrow Old Mine	54	3	1024	Wheel Maria	10	620
1000	Harrowbarrow Consols	2	2	4000	Wheel Martha Consols	5	76
800	Hawknor	3	2	256	Wheel Mary Ann	5	76
6000	Heigston Down Con.	14	3	1024	Wheel Mary (Calstock)	34	25
256	Herdston	14	3	256	Wheel Mary Consols	34	25
1000	Hilbrann	124	1				

2040	Blanchard	18	30	256	Wheat Mary Remond	10	3
2041	Blackburn	18	30	257	Wheat Mary	10	3
827	Kirkcubrightshire	21	21	128	Wheat Methla	16	100
2046	Lambrooke Wh. Maria	8	30	256	Wheat Norris	9	34
2048	Lanier Consols	21	21	128	Wheat Pollard	12	12
200	Larkhills	10	30	210	Wheat Prospect	4	9
165	Levant	10	30	126	Wheat Providence	30	40
128	Lewes	8	10	128	Wheat Rye	40	25
1280	Llanycynfa	6	19	128	Wheat Rose	40	25
128	Ludcott	6	3	256	Wheat Salisbury	13	10
4000	Marke Valley	10	30	612	Wheat Sarah	10	5
5080	Mendips Hills	11	12	90	Wheat Seton	150	835
200	Mining Co. Ireland	10	12	1024	Wheat Sparsne	11	8
200	Nantawog	14	10	128	Wheat Spence	10	8
128	North Fowey Consols	15	20	128	Wheat St. Cleer	21	15
100	North Pool	11	61	260	Wheat Trelawney	75	130
70	North Roskear	10	30	256	Wheat Tremadoc	12	8
236	North Trebargt	21	4	256	Wheat Trevenna	30	4
100	North United	9	20	256	Wheat Trewenan	30	10
256	North W. Cleary	21	10	128	Wheat Yarn	12	10
128	North Wh. Providence	21	10	356	Wheat Victoria	2	2
256	North Wh. Rose	36	10	127	Wheat Virgin	2	50
15000	Northern Coal Co.	23	2	1024	Wheat Walter	4	34
600	Old Delabole Coal Co.	25	43	256	Wheat Williams	2	18

[illegible]

290 Penbrooke	15	4	1000	Altin Mining Company	14	3
290 Penhallow Moor	15	4	1000	Astorian Mining Co.	5	50
290 Penryn	15	4	10000	Anglo-Mexican Co.	20	4
100 Penrhydd	30	6	3374	Dito Subscription	100	4
125 Pen-y-Cefn Mine	50	55	2000	Bolander	150	5
290 Perran St. George Un. ..	13	30	12000	Ditto Serp	15	6
128 Perran Wh. Virgin	94	40	10000	Brazilian Imperial ..	20	4
512 Plymouth Wh. Yealand ..	14	3	12000	Cobre Copper Co.	40	18
2085 Prince Edward	14	1	8500	Colombian Co. regis. ..	55	5
256 Redrith Consols	3	8	5000	Ditto Serp	43	4
1000 Rhymney Iron	50	25	10000	Copland Mining Co.	14	22
256 Rose Consols	10	12	30000	General Mining Assn. ..	20	15
1000 Rossmore Hill	1	3	5051	Mocaba & Cacao	25	6
256 St. Valer	1	3	1200	R. del Monte, regis. ..	28	11
256 Saurton Consols	31	3	9930	Ditto unregistered ..	28	11
125 South Cardon	10	350	Ditto Lito Debentures ..	21	21	
2000 South Deolcath	7	14	Ditto Black Dito	18	18	
256 Str. Friensh. Wh. Ann ..	94	14	Ditto Loan Notes	130	120	
200 South Harrodd	93	26	1000	Royal Santiago	10	72
194 South Tolgu	24	7	2000	Tachua Mines	3	31
256 South Tynan	10	14	4100	St. John del Rey	15	28
256 South Trelawney	122	28	9174	United Mexican	28	14
128 South Yeoland	161	28				
128 South Welsh Basket	10	130				

* We should feel greatly obliged by agents, or others interested, furnishing us with such directions for our Share List as may not have reached through our usual channels. Information on any object being, to present or to state the of the press as can be obtained - to procure which, we solicit the aid of correspondents in general.

LATEST CURRENT PRICES OF METALS.

LONDON, NOVEMBER 6, 1845.

COPPER - Bar a. Wales - for	16	8	0	COPPER - Ordin. sheets, lb.	0	0	0
" " " London - do	0	10	0	" " bottoms	0	0	0
Nail rods	0	10	15	" Chilian, in cakes	0	82	0
Hoof (Star)	11	5	11	Tin - Com. block, cert. ..	0	4	18
Sheet	0	13	0	" " bars	0	4	19
Bars	11	0	11	Refined	0	5	1
Welsh cold-blast	5	5	10	Strait	4	18	4
foundry pig	3	9	8	Rance	5	0	5
Scott pig & Clyde	3	9	8	Tin - Plates - Ch. IX, bar	1	9	1
Railway	9	15	0	" " IX	1	9	1
Roaming, C&D	0	0	0	Coke, 10	0	0	6
" " FSI	0	0	0	" IX	1	2	1
" " Gornif	0	15	0	LEAD - Sheet &	0	19	0
" " Archangel	0	13	10	Pig, refined	0	21	0
Swedish, on the spot	0	11	10	" cannon	0	18	5
" Steel, fag.	0	16	0	" Spanish, in bd. ..	17	10	0
" " kegs	14	0	14	" American	0	18	0
COPPER - Tile	0	87	10	SPELTER (Coke)	18	12	15
Tough cake	0	84	10	ZINC (Sheet) in export ..	0	38	0
Best selected	0	91	19	QUICKSILVER	0	0	0

Discount 2½ per cent. Net cash. Discount 3½ per cent. Ditto. In kegs 3 and 4 - 1½. Discount 3 per cent. Ditto 3 per cent. Net cash. Monthly report. Discount 3 per cent. Ditto 1½ per cent. Net cash. Discount 14 per cent. Discount 11 per cent. * For home use it is 332. per ton.

[From our Correspondent.]

MONTHLY REPORT.

The transactions in all kinds of metals, during the past month, were unusually limited, and prices remain, with few exceptions, the same as in last ultimo.

COPPER. - Welsh and Staffordshire continue in fair demand, and the stocks of merchants' bars in masters' hands are low. Scotch pig has scarcely fluctuated 2s. per ton for the last four weeks. Towards the middle of October, there was a disposition to purchase largely at about 1s. under the current rates; but this feeling quickly subsided, and since then little has been done. The present rates for mixed No. 1 & 2 are 70s., and for all No. 1 71s. to 72s. Export orders can be executed at 1s. to 1s. 6d. less. Some sales were made last week for spring delivery at 75s. for 3-5ths No. 1 and 2-5ths No. 3. About 200 tons of Swedish were sold last month at 117. to 121. 5s., and Swedish steel was more in request, of which some sales were made at 147. The stocks of each are now very limited.

COPPER. remains steady, but the demand is not brisk.

TIN. - English continues very scarce; and, although no advance on 9s. 6d. per cwt. has been made, the feeling is becoming more anxious, and it is difficult to be made over at 9s. which we consider the lowest actual price, with a tendency upwards. Foreign is about 5s. higher than last mt., with no Banca and very little Straits in firm hands. At a sale of 44 casks of the latter on 14th ult., a large portion was sold at 9s.

TIN-PLATE. - The purchases of charcoal for the American market being completed, the

...and for this description is considerably abated. Coke is in better request, and the stocks unusually low; but as the makers can now turn their attention to the manufacture of this quality, the market will, no doubt, soon be well supplied.

LEAD is rather dull, and we quote it at 5s. to 10s. lower than on 1st ult.

SPELTEN is rather easier than it was about two weeks ago; when, owing to the purchase of about 250 to 300 tons at 18s. 10s., the price rallied. Independently of these transactions, the sales last month were very few, and these almost exclusively for home use. The stock on hand to-day is 2500 tons.

(From a Correspondent.)

MONTHLY REPORT.—SPLETEN in the early part of last month was in fair demand, about 300 tons having changed hands at 18s. 15s. per ton. Within the last few days some parcels have been offered in the market, without finding buyers above 18s. 15s. The stock on the 1st inst. was 2600 tons.

IRON.—English iron of every description continues in brisk demand, at full prices, and several extensive contracts for rails were made during last month, both for home and foreign lines, at prices varying from 9s. 7s. 6d. to 9s. 10s., delivered in Wales. Bars have also been largely dealt in for exportation and home use. In Scotch pig a large business has been done during last month, at prices varying from 67s. 6d. to 70s. for mixed Nos., and 72s. to 75s. per cwt., delivered at Glasgow, and for spring delivery some of the makers have sold mixed Nos. as high as 75s. Swedish has been in fair demand at 11s. to 11s. 5s., at which about 230 tons changed hands last month. Swedish steel has advanced to 147s., and stock much reduced.

English Coffee is without alteration.

TIN.—The price of English is merely nominal, the shippers refusing to take orders for any quantity, even at 1s. to 2s. per cwt. higher than quoted. In Banca and Straits several large sales were made on the spot at 100s. for Banca, and 97s. and 98s. for Straits, and for arrival some parcels have been sold at 68s. 6d. for Banca, 69s. 6d. for mixed Nos., and 71s. 6d. for No. 1—cash, free on board.

DOUGLAS & HILL, Metal Brokers.

EXPORTS OF METALS TO INDIA FROM LONDON AND LIVERPOOL.
FOR THE FIRST TEN MONTHS OF 1845 AND 1846.

Metals.	1845.	1846.	To 1846.	Dec. in 1846.
Spelter	Tons 2688	4502	1814	...
Copper	3977	3997	...	960
Iron, British	10481	7246	...	3233
Ditto, foreign	898	3014	2117	...
Tin-plates	Bares 916	6723	...	583
Lead	Tons 329	374	...	288
Steel	1501	723	...	718
Quicksilver	Bolles 233	735	224	...

GLASGOW PIG-IRON TRADE.
Nov. 4.—Since the date of our last communication, our market has been rather languid, and the price of pig-iron has fallen in the early part of last month. A considerable number of business has been done, and the price may be freely put at quoted at 68s. 6d. for Banca, 69s. 6d. for mixed Nos., and 71s. 6d. for No. 1—cash, free on board.

DOUGLAS & HILL, Metal Brokers.

MEETINGS OF SCIENTIFIC BODIES DURING THE WEEK.

Society.	Address.	Day.	Hour.
Geographical	3, Waterloo-place	Monday	8 P.M.
Medical	Boit-court, Fleet-street	Monday	8 P.M.
Medical and Chirurgical	53, Berners-street	Tuesday	8 P.M.
Zoological	11, Haversham-square	Tuesday	8 P.M.
Syro-Egyptian	71, Mortimer-st., Cavendish-square	Tuesday	7 P.M.
Graphic	Thatched-house Tavern	Wednesday	8 P.M.
Microscopical	21, Regent-street	Wednesday	8 P.M.
Pharmaceutical	15, Lincoln-square	Wednesday	8 P.M.
Chymical	27, Sackville-street	Wednesday	8 P.M.
Literary Fund	73, Great Russell-street	Wednesday	3 P.M.
Royal Society Literature	4, St. Martin's-place	Thursday	4 P.M.
Medico-Botanical	32, Sackville-street	Thursday	8 P.M.
Astronomical	Semmer-street	Friday	8 P.M.
Asiatic	14, Inner Circle, Regent's-park	Saturday	2 P.M.
Royal Botanic	14, Inner Circle, Regent's-park	Saturday	3 P.M.
Westminster Medical	27 A, Sackville-street	Saturday	8 P.M.

MERIONETHSHIRE SLATE & SLATE SLAB COMPANY.
—Notice is hereby given, that NO APPLICATION for SHARES in this company will be RECEIVED after MONDAY, the 9th of Nov. next, after which the allotment will be immediately proceeded with.—7, Cophthall-court, Oct. 30, 1846.

VICTORIA TIN MINING COMPANY (late the Wheal Fortune Consols, and other Sets).—NOTICE.—APPLICATIONS for SHARES in this company will NOT be RECEIVED after Monday next, the 9th inst.
—1, Cophthall-chambers, London, Nov. 6, 1846. By order, W. M. SMITH, Secy.

COPPER ORES.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
North Roekear	110	24 6 0	Wh. Harriet	113	26 17 0
ditto	103	24 6 0	St. Agnes Consols	115	26 17 0
ditto	91	7 1 0	Fewey Consols	115	26 17 0
ditto	89	6 11 8	ditto	120	26 17 0
ditto	87	6 16 8	ditto	52	2 9 0
ditto	83	5 5 0	South Roekear	33	5 2 0
ditto	78	5 7 6	Wh. Chance	77	5 6 0
ditto	77	5 3 0	Wh. Gerry	75	4 9 0
ditto	66	5 0 0	South Wh. Bassett	65	4 9 0
ditto	46	2 0 0	Wh. Penryn	56	4 6 0
Consolidated	104	9 16 0	ditto	56	4 6 0
ditto	105	9 16 0	South Wh. Francis	55	9 11 0
ditto	104	6 3 0	ditto	49	19 3 0
ditto	91	4 13 0	ditto	37	4 12 0
ditto	86	5 5 0	Wh. Harriet	78	4 18 0
ditto	83	5 6 0	ditto	40	4 10 0
ditto	83	6 4 0	St. Agnes Consols	48	4 10 0
ditto	23	4 4 0	ditto	43	4 1 0
Lucroft	72	5 1 0	Lucroft Consols	61	4 1 0
ditto	68	4 1 0	Trevel	61	4 1 0
ditto	63	4 18 0	Wh. Vyvyan	29	0 10 0
ditto	60	4 16 0	ditto	28	0 8 0
ditto	54	3 10 0	East Wh. Crofty	52	6 14 0
ditto	47	7 14 0	St. Austell Consols	23	0 0 0
ditto	40	3 6 0	Penarrest	7	3 11 0
ditto	37	1 0 0	ditto	4	15 0 0
Wh. Seton	129	6 3 0	Great Polgoth	11	11 0 0

TOTAL PRODUCE.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Wh. Harriet	124	26 14 0	Wh. Harriet	124	26 14 0
St. Agnes Consols	92	24 18 0	St. Agnes Consols	92	24 18 0
Lucroft Consols	70	24 18 0	Lucroft Consols	70	24 18 0
Trevel	61	24 18 0	Trevel	61	24 18 0
Wh. Vyvyan	67	18 7 0	Wh. Vyvyan	67	18 7 0
East Wh. Crofty	52	18 14 0	East Wh. Crofty		

METROPOLITAN IRON AND STEEL COMPANY.
(Provisionally Registered, pursuant to Act of Parliament, 7 and 8 Vic., c. 110.)
Capital £200,000, in 10,000 shares of £20 each.—Deposit £2 per share.
A company has been formed for the MANUFACTURE OF IRON AND STEEL (from cast, scrap, and all descriptions of old refuse iron), which shall be of a superior quality to any hitherto produced in the mining districts.—The objects of the company are fully explained in the prospectus.
In allotting the shares a preference will be given to parties in the iron trade.
Applications for shares and prospectuses to be made to Mr. Charles Chilton, No. 35, Moorgate-street; or at the Steam Mills, 135, Old-street.

PATENT KAMPTULICON COMPANY, 18, CORNHILL.
—Notice is hereby given, that, in accordance with Rule 13 of the Terms and Conditions for the government of the company, the SECOND EXTRAORDINARY GENERAL MEETING of the proprietors of shares will be HELD at the offices, 18, Cornhill, on Friday, the 27th inst., at One o'clock precisely, for the purpose of altering the existing rules and regulations, and sanctioning an application to Parliament for an Act of Incorporation.
P. J. GREVILLE, Secretary.

PATENT KAMPTULICON COMPANY, 18, CORNHILL.
—This company having completed their new factory, are prepared to supply railway managers and contractors with an elastic material (perfectly non-absorbent) to place between the rails and sleepers, and between the frames and bodies of carriages, to prevent jarring, and, consequently, wear and tear. The elastic planking is strongly recommended to be used for the backs and sides of carriages, in prevent splinters when accidents occur.
By order of the board,
P. J. GREVILLE, Secretary.

THE ENGINEER AND CONTRACTOR'S POCKET-BOOK
FOR THE YEARS 1847 AND 1848.
RE-MODELLED AND IMPROVED ON TEMPLETON'S ENGINEER'S POCKET-BOOK.

Comprising, besides the Calendar and Memoranda for the Two Years, requisite Tables of Tides, &c.—the Acts for the Regulation and Making of Railroads—Standing Orders for the ensuing Sessions of both Lords and Commons for Public Works in general—Westminster-bridge—Prices of all the Operations of Railway Surveying and Making—Prices of Tools and Machines—of Iron and Iron-Works—Locomotive-Engines, and Experiments with Trains—Strength of Materials of all kinds—Masonry and Stonework—Hydraulic Experiments, Screw Propellers, and Details of Her Majesty's Steam Navy, with a particular Account of the Steam Navy of France—Electric Telegraph—Mechanical Powers—Measurement—the various useful Tables—and a corrected List, by the Secretary, of the Members of the Institution of Civil Engineers, &c. &c.
Edited and published by John Weale, 89, High Holborn.

Just published, Part I.
COMBUSTION OF COAL, CHEMICALLY & PRACTICALLY CONSIDERED.
With coloured plates.
By CHARLES WYLLIAMS, Esq.
London: Simpkin, Marshall, & Co., and J. Weale—Birmingham: Wrightson & Webb.

THE WEATHER.—"MARKWICK'S PATENT CHEST"
PROTECTOR effectually retains the warmth of the part to which it is applied, and prevents all contact with external damp or cold.—"Advertiser." "Is much more efficacious than any thing ever used for the purpose."—*Bell's Life.* Nos. 1 to 4 are for constant wear. Nos. 5 and 6 for placing over the shirt on leaving heated rooms, in travelling, &c. To be had of all respectable chemists, hosiery, &c., at from 1s. to 4s.; and wholesale at the Patent Epithem Depot, 69, King William-street, City.

NOTICES TO CORRESPONDENTS.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 25, Fleet-street, and can be obtained before Twelve of all the news agents, at the Royal Exchange and neighbourhood.

We have been compelled to postpone several papers of much interest; also letters on the Universal Atmospheric System; Relative Strength of Malleable Iron Beams; Lightning Conductors, &c., &c.; an article on the Smelting Trade in New South Wales; all which an ENLARGED SHEET, next week, will enable us to publish.

THE MINING JOURNAL

And Atmospheric Railway Gazette.

LONDON, NOVEMBER 7, 1846.

We are sorry to observe, that the colliers of the South Staffordshire districts are again on the move for a strike—the thick coal colliers for 1s. per day, and the thin coal and ironstone getters 6d. per day, increase in their wages. Notices have been given to several collieries of 14 days, from last Saturday, for the above rise—alleging, as reasons, the present high price of provisions—the severity with which the parish collectors force all householders to pay the rates—and that they do not have a proportionate benefit for their perilous exertions. Should this strike be persevered in, the iron trade will again become unsettled—numerous extensive contracts having been made on the faith of existing wages, and which will be most seriously interfered with, as the proposed advance will add 10s. per ton to the price of iron. The iron trade has been steady for the past few weeks, and without alteration in price; although some parties have anticipated, that the orders for the iron necessary for railways in the course of construction, would cause an advance in price; it is not, however, believed that those orders which have been kept back, but which cannot be withheld much longer, will either cause an advance, or that there will be much difficulty in finding parties to execute them. We had hoped that the iron trade would have proceeded with an unwonted degree of regularity over the present and ensuing year; we fear, however, that the firmness so much to be desired, will be interrupted by these continual attempts of the men to enforce a higher, and, as has already been seen, an unhealthy and disproportionate rate of wages; and should an advance in the price of iron take place, it is to be feared that a protracted struggle would take place between the masters and men engaged in every department of the manufacture. There is among many of them a discontent and impatience of control, which, with the facilities of communication with every other district, renders their clubs and their meetings easily organised; and should these outbreaks continue, the greatest difficulties must be expected in keeping up the supply at all equal to the demand. A rumour has gone abroad that a scarcity of ironstone exists in Staffordshire, which will be soon severely felt: we most certainly treat this as only a rumour—for we believe, and we hear from the best sources of intelligence, that no signs of such falling off had anywhere been exhibited. This would at once make a great difference in the cost, and be a reason for an increase in price.

The question of the safety and sufficiency of the national food, is of such vast and vital importance, that it would be unpardonable to treat it in any other way than with a strict and conscientious reference to the ascertained facts of the case. It is no more an agricultural than it is a manufacturing question—no more a manufacturing than a mining—because it penetrates all interests, and plants itself upon every hearth. It is one of the unchallenged facts of the case, that the last European grain harvest, including that of the islands, in the chief of which we write, was as full and large a harvest as the nations are wont to see waving in their fields, or reposing in their storehouses. There was an occasional and irregular deficiency in the yield of oats and barley; but, as a whole, the Cereal produce of Europe was fully an average one, leaving the countries less populated, and more exclusively agricultural, than our own, a large surplus for the necessities of the less fortunate districts. It is also a fact too notorious to be doubted, and too painful not to be deeply deplored, that not in Great Britain only, but generally throughout the continent, the potato crop has, from unknown causes, been a great and a melancholy failure; the loss of this esculent is a serious deduction from the provision stores of Europe; and though it has not, and it will not, evaporate in a scarcity of corn, yet it will, in a measure, raise the market value, both of grain and flour, in consequence of the additional demand for them. This inconvenience, which, we believe, will be the chief pinch of the crisis, will be rounded off, if not wholly obviated, by the measures taken on the part of the Government and merchants of England, to fill the markets of the kingdom with grain and flour, which otherwise we should not receive, to replace an inferior edible, which for the present we have irretrievably lost. At this moment, from the Black Sea to the St. Lawrence—from Odessa to Quebec—our Argonauts are ploughing their homeward course, not with a golden fleece, but with a richer freightage, fully to compensate—or, even, perhaps, largely to overbalance—the loss which has fallen upon our provision stores.

These are the cardinal truths, the leading particulars, as to the security of the national food, till the summer months of 1847, and undoubtedly we see nothing in it to frighten the Isle from its propriety. Already prices appear to have reached their maximum—the alarm having nearly subsided, and the fullness of our resources to fill up the unfortunate chasm, being clearly ascertained. It will be strange to us if the next Mark Lane averages do not indicate such a softening of the pulse of the provision market, as will assure the most timid, and convert the most unbelieving. With the knowledge of the stores of corn laid up in Europe, and which, for obvious reasons, must shortly be brought to market, we think it impossible that present prices can be maintained. Moreover, from Alexandria and the ports of the Black Sea, there arrived recently, in one week, at Toulon and Marseilles, 44 vessels laden with corn: this activity of importation continues; and when the crowd of Atlantic cargoes, now on their way, shall have been delivered, we think that not only Great Britain, but Europe at large, so far from enduring scarcity, will be in the ample enjoyment of abundance. Under every phase, whether past or present, of this crisis, the visitation itself has scarcely been more painful than the conduct of the Irish people under it. They suffer, in this case certainly, from no act of the British Legislature—from no cruelty of the Saxon—for these are the popular Irish imputations against the Government and people of England—their chastisement is wholly and obviously a providential infliction: notwithstanding, the absence of their customary food is not more palpable, than their utter want of patience and subordination at the loss. Instead of a cheerful struggle against the difficulty, they consume themselves in turbulent complaints, and in violent outrages; and instead of putting their shoulders to the wheel, and helping forward the rectoral measures of Government, they prefer assembling in idle masses, and bring back upon us, for a different purpose, the scenery and the sorrows of Clontarf and Mullagmast. It is not permitted us to hope, that a voice so humble as ours can be heard amidst the tempest which is now sweeping over the Irish soil; but if our whisper should reach the ear of some influential member of its hierarchy, or some popular leader of the people, its purport would be—teach the flock of which you are the overseer, the duty of civil obedience—teach the people of whom you are the tribune, whatever is the chiefest of their griefs, the chiefest of their obligations is to maintain good citizenship. For ourselves, having, at the commencement of October, foreseen, as we judged, the amplitude of our resources for the winter supply of our public necessities, we were as bold to declare our then almost solitary opinion, as we are glad now to notice the general admission of its truth: that there will be no deficiency as to England, is now the universal confession,—for our merchant ships are known to be ploughing every deep, and with their sails whitening every sea, bearing to these shores grain in such quantities as would match, it is supposed, the annual yield of Egypt under the sway of her PHAROAHs.

[These remarks were intended for our last Journal, but a late pressure occasioned their unavoidable omission: however, we readily afford them space now—not alone from the timely applicability of the reasoning, but from the events of the past week so fully confirming the correctness of the writer's conclusions; in corroboration of which, we may, besides other matters, quote the following paragraph, which appeared in the Morning Chronicle of Wednesday:—"Arrival of Provisions from the United States of America.—The Samuel Hicks, which arrived at Liverpool from New York on Saturday, brings 12,268 bushels of wheat; 4010 barrels flour; 9720 bushels Indian corn; and 70 boxes cheese." Also, from the same paper of yesterday:—"The General Vesle arrived at Liverpool from New Orleans on Tuesday, with 2284 barrels flour; 3224 sacks wheat; and 1000 kegs lard."]

The subject of the manufacture of iron in France, by the introduction of coal from this country, was agitated in our columns some two or three years since—while the increasing consumption in that country, from the construction of lines of railway, the monopoly which exists, and the heavy duty imposed on the several descriptions of iron, whether pig or bar, have at last attracted the attention of capitalists, who, from a prospectus now before us, and to which reference is made in our advertising columns, appear to have acted on the hint, which, whether conveyed by others or ourselves, was, we think, not unworthy of notice, nor will it be found otherwise than as affording a high remuneration on the capital employed. We purposed to have entered at some length into the calculations made, the relative cost of materials, and their proportions in the manufacture, with reference to the prices "at home and abroad;" but the demand on our columns of to-day, embracing as they do many important objects, induce us to defer, until another opportunity presents itself, entering into those details, which at once prove to us the practicability of the scheme—if such it may be termed—for we are given to understand, one furnace is already in blast, producing 50 tons of iron weekly, with a consumption of fuel not exceeding, from the admixture of the native and foreign coal, 1 ton 15 cwt. per ton of iron, and the ore yielding 40 per cent. to 44 per cent.—or, in other words, requiring only 2½ to 2½ tons to the ton of iron. The present project appears to be the introduction of anthracite into France, or rather in the department of the Loire Inferieure, about 30 miles distant from Nantes, where iron ore abounds of the varied qualities, necessary for the manufacture of a superior description of iron. Operations appear to have been carried on heretofore with coal, obtained in the immediate locality; but the economy observed in the use of anthracite, with the application of the hot-blast, and the introduction of the improved machinery, which we have seen in action in Germany and elsewhere, for applying the gases or heat to the smelting operation, and heating the air required as blast, has determined the proprietors on availing themselves of the Welsh anthracite, or stone coal, for the application of which, in the smelting of iron, the late lamented GEORGE CRANE, Esq., secured a patent—that gentleman having found that, with the application of hot-blast, 28 cwt. to 30 cwt. of anthracite was ample for smelting a ton of foundry iron—the yield being, if we recollect aright, 55 tons to 60 tons a week from a cupola furnace, not exceeding 28 feet in height, with boshes, 11½ feet to 12 feet.

The object of the parties with whom the project emanates, is to introduce anthracite, which, including the cost of freight and import duty, with carriage to the works, is estimated at 39 fr. per ton—or taking 1½ tons (say, 57 fr. 50 c.), ex. at 25 fr. 40 c.—=2fr. 4s. 10d. The ore consumed in smelting 1 ton of pig-iron, is set down at 2½ tons—or, in the gross, 8 fr. 50 c., equal to 6s. 7s.; the limestone, 5 fr., equal to 3s. 11d.; labour, 8 fr., equal to 6s. 3d.; and wear and tear, 8 fr., equal to 6s. 3d.—which, with transport to Nantes, 4 fr., equal to 3s. 1d., give a total of 90 fr., equal to 3l. 10s. 10s. per ton—the cost, of manufacture and transit to shipping port—while the selling price of foundry iron, No. 1, ranges from 195 fr. to 220 fr. per ton, while bar-iron commands a price of 400 fr., or 15l. 15s. per ton. It must, then, be apparent, if these estimates be correct—and we have no hesitation in adopting them, as emanating from parties not only of high character, but who have acquired much practical information on the subject—that an immense revenue will accrue from the union or amalgamation of English coal with French ores, and thus will there be a further bond in a metallic shape between the two countries.

In last week's Number of the MINING JOURNAL, we inserted a paragraph, taken from the Literary Gazette, presuming on the usual correctness of that periodical, respecting a plan invented by Capt. FREIHERR VON NEUBERG, for enabling railway trains to ascend and descend very steep inclines with perfect safety, by giving every carriage of the train a power to proceed independently of the bite of the locomotive wheel on the rails, which is accomplished by conveying the propelling power of the engine to one axle of every carriage. Now, without attempting to detract from the genius and ability of Capt. NEUBERG, it is but justice to our countryman (Mr. W. H. JAMES), to state that he invented and patented the self-same plan six years ago; and, although Mr. JAMES is an engineer, and the

son of one who took a great interest in the completion of the Liverpool and Manchester Railway, and, consequently, one whom we should suppose had some little interest, we believe he has not in a single instance been able to get his invention adopted. We have, on more occasions than one, had brought under notice the circumstance of two or three parties inventing the same thing entirely unknown to each other; witness the gun cotton, which has been experimented on by some three or four persons before Prof. SCHONBEIN, made it public, and the electric telegraph, by Messrs. COOKE and WHEATSTONE, unknown to each other; but who, wisely, afterwards coalesced, and took out their patent jointly. It is possible that Capt. NEUBERG had not seen the specification of Mr. JAMES; but if the plan should come into use on the continent, it is but justice to the latter for the public to know, that he was at all events the original inventor of the principle, although unsuccessful as to getting it into practice, and that he has had the start of the captain by some half dozen years. We took the paragraph in question, as before stated, from the Literary Gazette, without at the moment being aware of the above circumstances; and, having referred for information, we have thought it right to make these remarks. Although the invention is by no means new, we believe the paragraph has gone the round of the European papers without explanation—a circumstance showing the extreme carelessness with which the press receives and circulates its information.

Gratifying as it is at all times to observe the advancement of scientific principles, as applied to the operations of life, facilitating the labour of the artisan, multiplying the products of manufactures, increasing the amount of the necessary articles of consumption of mankind, and spreading intelligence, happiness, and civilisation throughout the world; it is doubly so, when an attempt is made to bar its progress—such attempt being made by parties who ought to be foremost in the ranks for the spread of knowledge among, and the advancement of the employment and comfort of, the people; and when in spite of every opposition, it bears proudly on, and comes nobly off a conqueror. Such has been the case with the Western Gas Company, established for the manufacture of a gas far superior to any yet produced for the purposes of general illumination—the result of many years' scientific experiments of Mr. PALMER (the engineer to the company), and which would benefit the public and the subscribers; they no sooner commenced the erection of the works, under the authority of an Act of Parliament, on ground purchased at Kensal Green, than they meet with a most determined opposition from the Rev. ARTHUR GORE PEMBERTON (the rector), and a clique composed of some of the aristocrats of the village, who get up a professed public (?) meeting, pass resolutions, describing the erection of the gas-works as a nuisance, and a serious injury, to the inhabitants—at which meeting none are allowed to speak but those who support the rev. chairman's views—and then giving out that the resolutions were the opinions of the majority of the inhabitants, to give a colour to the adoption of legal measures to prevent the progress of the company. In another column will be found a report of a meeting, held on Wednesday last, convened by the directors, in consequence of a requisition, signed by upwards of 100 of the inhabitants of the neighbourhood, to ascertain really the sentiments of the majority. The result of that meeting is a great moral victory; most numerously and respectfully attended—all opinions were heard with candour and liberality—and not a single hand was held up against the resolutions, expressive of the benefit to be conferred by the erection of these works—while the principal opponents of the measure kept out of the way—doubtless, aware of their inability to withstand the force of truth; and the conviction, that to minds, unblinded by prejudice, the adoption of the discoveries, which the advance of science is daily bringing to light, tends to the happiness of the greater number, and places the bounties which Nature has placed around us within the reach of all. We trust the benighted opponents of the measure will, for their own sakes, cease their useless opposition; for as well might they, like CANUTE to the ocean, say—"Hence shalt thou come, and no farther; and here shall thy proud waves be staid"—or, like Mrs. PARTINGTON, with her mop, endeavour to bar its surge progress—as an attempt to curb the rapid strides of knowledge, the continuous discoveries of science, and their application to the wants and wishes, the comforts and luxuries, of the people.

ON THE ECONOMICAL CONSTRUCTION AND WORKING OF RAILWAYS.—We beg to direct the attention of our readers, especially those in any way connected with railways, to the astonishing letter in another column, signed "Philanthropy," on the subject of constructing and working railways, in which there appears some most astounding deductions—among others, the possibility of making the united efforts of eight men propel on a perfect level railway a load equal to a stage coach, with 20 passengers, 250 miles in one day; which, allowing a stage to be 10 miles, would make 25 stages, and 4 horses at each stage would make 100 horses, to accomplish the same in 25 hours—thus showing the united power of eight men vastly superior on a good railway to 100 horses on a turnpike road! and yet it appears theoretically correct. We happen personally to know that the author is a very talented, ingenious, and practical engineer, who designed and erected at Twerton, near Bath, over the River Frome, admitted by competent judges, and by the public in general, to be the firmest economical suspension bridge ever erected, it being so contrived as entirely to prevent oscillation or undulation—a dangerous property more or less attending all suspension bridges with curved chains; and we are glad to have this opportunity of bearing testimony to this also extraordinary fact (an engraving and description of which appeared in our Journal). But, for this we should have hesitated ere we allowed his letter to appear in our publication—as it is, we think it is well deserving the attention of the railway public, for supposing only one-half of the advantage shown in theory, be gained in practice, it may even then be deemed an extraordinary production.

VALUABLE DISCOVERY OF COAL IN WESTERN AUSTRALIA.—Information has just reached this country of two important discoveries in this distant colony. The first, is that of a supposed bed of coal, the particulars of which are contained in a letter from Mr. S. Moore, dated July 30, in which he states that, in cutting a drain 100 yards long, and 4 feet deep, in the lands of Mr. Beauchamp, 35 miles south of Fremantle, and near the Murray River, a stratum was found 3 feet from the surface, of clay, similar to the shale of Lancashire, lying nearly horizontal, containing shining substances, like fractured coal, imbedded in it, and which, when burnt, produced gas and flame; on digging east and west it was again found dipping west 2 inches in the yard; on the east they sank 15 feet, passing through the following strata:—1, a yellow sandy clay; 2, yellow clay, containing reddish spots; 3, shale clay, containing black shiny substances, resembling coal; 4, brown clay; 5, azure blue clay, 6 inches thick, containing veins of a black substance, in which the marks of large leaves are discernible; 6, blue clay, rather lighter than the last, and 3 ft. thick; 7, dark brown clay, 46 inches thick; 8, hard sand, 2½ ft. thick; and 9, strong adhesive clay. At this depth the progress was stopped by the water, but the several productions were examined by Mr. Birch, a chemist from Staffordshire, who pronounced them to belong to the coal measures. A boring instrument was to be immediately sent to the scene of operations. A new port had also been discovered in Mangle's Bay, at the south extremity of Cockburn Sound, three miles north by east from Peel's Harbour, having a depth of 5 and 6 fathoms, 100 yards from the sandy beach, and 10 to 11 fathoms, at a cable's length further out, on a bottom of the very best holding ground—a soft clay.

FINLAY'S PATENT ATMOSPHERIC SLIDE FOR GAS LUSTRES OR OTHER LAMPS.—This is a very ingenious contrivance, remarkable because of its simplicity, and is in no way liable to go wrong. The arrangement of it is thus:—The outside tube or pipe is the cylinder, in which a vacuum is formed by pushing up the lamp; the diameter of the tube is in proportion to the weight of the lustre, and is so nicely balanced that the lustre stands at whatever point drawn down. This entirely sets aside the need for weights, springs, or cords; and, as already observed, its great recommendation is its extreme simplicity, and fitness for the purpose.

PROGRESS OF FRENCH MINING INDUSTRY.

The company formed by Mr. York, and Messrs. Mackenzie and Brassey, the well known railway contractors, for working the forges and iron establishments of Eyreux and Pont Audemer, has just been dissolved.

The large Post-office contracts, for the supply of coal for the mail steamers, were disposed of last Friday. The contract for the supply of 1,800,000 kilogrammes, to be delivered at Calais, was taken at 2 fr. 38½ cents. the 100 kil., by M. Fayen; Mr. Charlton offered 2 fr. 50 cents. The large contracts of 8,400,000 kil., and of 4,600,000 kil., was taken by Mr. Jackson, at 3 fr. 39 cents.—that price being less than that of the Grand Combe Company, which was 3 fr. 57½ cents., and than that of M. Breguet, which was 3 fr. 42 cents. Mr. Jackson also obtained the contracts for Malta, Alexandria, Athens, and Constantinople, at 4 fr. 29 cents.; the quantity of coal to be supplied being 24,800,000 kil. The prices offered by Mr. Jackson's competitors were—4 fr. 39 cents. by Mr. Chapman; 4 fr. 31 cents. by M. Allegre; 4 fr. 30 cents. by M. Bernon. Thus, it will be seen that, of the vast quantity of 39,600,000 kil. of coal required by the Post-office, Mr. Jackson has obtained all, except the Calais supply of 6,800,000 kil. If my memory does not betray me, Mr. Jackson had the same contracts last year. At one moment it was doubted whether the award to this gentleman of the Marseilles contract would stand good. Immediately on its being declared, one of the official persons present, the sub-director of the Post-office, I believe, remarked that, by its treaty with the Government, the Grand Combe Company was bound to supply the State with coal at a lower price than had been named; but, after a little hesitation, it was stated that this objection would not be persisted in.

M. Leon Faucher's letter (a summary of which was given in my last communication), showing the total impossibility of the ironmasters to execute the orders they have accepted, has induced M. Merlan, manager of the iron establishment of Montataire, to address himself to the public, for the purpose of showing that M. Faucher is mistaken. He begins by denying the assertion of M. Faucher, that the American Navigation Company was unable to obtain the iron necessary to build its vessels. He says, that he himself offered to supply the material at 560 fr. and 500 fr., but that the offer was not accepted. He asserts that the company sent round to all the ironmasters, to know the price of 2000 tons of sheet-iron, of dimensions of 400 kil. the sheet; but as that size was, he says, so unusual, as not to be easily obtained, even in England, he assumes that it was only demanded to afford the company the means of saying, that the French ironmasters declined its orders, and of thereupon demanding the liberty to import from England the iron necessary. He then offers to supply, at present, the iron at less than 650 fr. He expresses a doubt, whether what is stated, with reference to the atmospheric railway, be correct. He insists that France is fully capable of supplying all the iron that can be required of her, and names several places at which iron establishments have taken a great development. To this epistle, M. Leon Faucher gives a crushing reply. He says, that M. Merlan may, as he asserts, have made an offer in January to supply the iron of 12 ships at 560 fr. the ton; at that time, he was not sure that the Chamber would vote the authorisation of a company for trans-Atlantic navigation, and it is one of the "artful dodges" of French ironmasters, always to pretend to have an immensity of iron on hand when nobody wants it; but the instant it is ordered, their dawdling and shuffling give the lie to their professions. M. Faucher then proceeds to show, that such was the conduct of this very M. Merlan. In January he professed, according to his own account, to be able to supply 2,000,000 kil. of *tôles*, and 500,000 kil. of *cornières*; but on the 27th June, he wrote to say, that he had no *cornières* of the size demanded, and he said not a word about the price of *tôles*, or their size, or the quantity he could supply, or the dates at which he could effect the delivery, although all these things had been asked by the company. This, M. Faucher justly observes, amounts to evasion. As to the objection, that sheets of the size demanded by the company are not made in England, M. Faucher says it is not true, and that, by a little exertion, the French ironmasters themselves could manufacture them. With respect to M. Merlan's assertion, that his own, and other, establishments are ready to supply all the sheet-iron that may be demanded at less than 650 fr. per ton, M. Faucher cites a letter, dated 27th September, of M. Schneider, of the Creuzot establishment, fixing that very price; and he adds, that this description of products of M. Schneider's establishments, are far from being of the first quality. To prove, moreover, that the ironmasters are not able to supply the iron required, he says that, on the 30th June, M. de Wendel, of Hayange, wrote to say, that it would be 10 days before he could give an answer to the company's demand; but that, from that day to this, M. de Wendel has not written at all—a sure proof that M. de Wendel cannot make the supply. There is a letter, dated 2d July, from the proprietors of the iron-works of Imphey, stating that if the 2,000,000 kil. of sheet-iron be required within a few months, they cannot undertake to supply them, and that they do not manufacture *cornières* at all. On the 5th of July, the proprietors of the works of Denain wrote to say, that an important affair had been offered to them, and that, if they accepted it, they could not accept the orders of the Navigation Company. Since the 5th July, the company has received no letter whatever from the Denain people—a sure proof that their orders cannot be received. On 17th June, M. Normand, the shipbuilder of Havre, wrote to the company, to say that he could not ask them, as he had intended, to confide to him the building of two of their vessels, instead of one, on account of his having received from the ironmasters a notification that they could not enter into any engagement. On the 10th August, Messrs. Courreau and Co., of Bordeaux, wrote to say that the iron employed in naval constructions had risen to 65 fr. and 70 fr., the double of what it ought to be; and that six months after the iron contracted for ought to have been delivered, the ironmasters had written to say, that they could not fulfil their engagements. Messrs. Courreau add, that things are becoming worse every day, and that it would be almost madness to undertake to construct vessels in iron, even at the highest price. The last proof cited by M. Faucher is, however, the most remarkable:—On the 28th July 5000 kil. of sheet-iron were ordered of this very M. Merlan, who declares his ability to supply nearly 3,000,000 kil.; but, though pressed every day, it was only on the 25th September that M. Merlan effected the delivery of the paltry 5000 kil.

If these facts, cited by such an unexceptionable witness as M. Leon Faucher, do not cry, trumpet-tongued, against the iniquitous monopoly of the French ironmasters, nothing on earth can. That monopoly makes all France buy rails for railways 50 per cent. dearer than need be; it makes sheet-iron 100 per cent. dearer than in England; it levies (says M. Faucher), at a most moderate calculation, not less than 30,000,000 francs (1,200,000 £) per annum on the people; it weighs upon and cripples almost every industry; and, though utterly unable to supply all the orders it receives, even at its own exorbitant price, it will not allow its victims to obtain supplies elsewhere. And yet, in spite of the remonstrances of the whole people, the Government allows this monstrous monopoly to exist! and, strange to say, intelligent and patriotic men, like the conductors of the *Moniteur Industriel*, actually contrive, by an inexplicable perversity of reason, to persuade themselves that, in defending this scandalous extortion of 35,000,000 souls for the benefit of a few, they defend a "national" interest.

On the 29th Oct., says a St. Dizier letter, no price had been fixed for the *fontes moulées* since the advance in other articles. The manufacture was only for old markets, and new orders were left without reply. The stocks of wood being laid in, a decline had taken place in that article; and at some large adjudications, nothing had been done, on account of the extortionate demands of the sellers.—Paris, Wednesday.

AUSTRALIAN COPPER ORE.—The *Phæbe*, whose arrival from Port Adelaide and the Cape of Good Hope in this country, we noticed in our last Number, as having, in addition to an extensive general cargo of the produce of both countries, the very large quantity of 600 tons of copper ore from the Burra Burra Mine, in South Australia, is now unloading in the East India Dock. We have had an opportunity of inspecting some of the ores, which consist of the blue and green carbonates, and grey oxides of copper, and are very rich; this portion of the cargo is reshipping for Swansea—the great copper smelting mart of Europe. Many persons are surprised at so large a quantity of ore being brought in one vessel, in addition to a full complement of general cargo; but the fact is, these ores are brought as ballast—thus enabling the owners of vessels to bring them to this country at a comparatively nominal freight to what would be charged if they formed the ship's cargo. Indeed, rich as the ores are, it would amount to a most serious impediment to their transport—in many cases proving a prohibition, if full freightage was charged; but, as wool forms a large proportion of South Australian produce, these ponderous ores assimilate well with its lighter qualities.

THE IRON TRADE OF SPAIN.

Spain has for ages past been known to possess, in vast abundance, numerous metals, dispersed principally through the provinces of Andalusia, the Asturias, Guipuscoa, Navarre, Biscay, and Alava; and all that is required, to raise the working of these mines to their natural importance, is a change from the convulsions she has suffered from foreign aggression, internal wars, and military despotism, to the calm pursuits of industrial life, and the development of those great resources, with which she is so eminently provided. It is to be hoped, the result of the Queen's marriage will be the restoration of tranquillity, and we are happy to see that the enterprising spirit of mining industry is again reviving. Besides the ores of tin, silver, copper, lead, with coal and quicksilver, with which Spain abounds, the mountains, which in every part rise throughout Biscay, are most prolific in iron ore; of very rich quality—one mine in particular, and which may be considered inexhaustible, is that of Somorostro, situated near the town of that name, about 12 kilometres from Bilbao. The iron of Biscay, although manufactured on the old method, is of a very superior quality, and bears throughout Europe and America a very high reputation, especially in the fabrication of steel, and is chiefly used in the royal manufactory at Toledo—the sword blades of which place are celebrated all over the world, and has, from time immemorial, been one of the principal sources of trade to the Biscayans. At the commencement of the present century, Biscay had a great number of forges in full work, her mountains being then covered with thick forests, easy of access, and thus supplying plenty of fuel at little cost; but the long wars to which that part of Spain has been exposed since the invasion of the armies of Napoleon, and their own intestine revolutionary conflicts, with the impolitic duties imposed by the Government on Biscayan iron entering Castile, has discouraged the forgemasters, and caused a complete stagnation in the manufacture. Another circumstance which tended to hasten this ruin, was, that the inhabitants of the Montaña Mountains, being exempt from the duties imposed upon the Biscayans, erected furnaces, and established a competition which the latter could not withstand. Of late years, however, we are glad to observe favourable changes have taken place; and at the present time there are no less than from 80 to 100 forges in blast in the province of Biscay alone, producing 16,000,000 lbs. of iron per annum, which will, most probably, increase, as confidence appears to be again gaining ground, several who had abandoned the pursuit are again having factories and foundries rebuilt, or thoroughly repaired, and capitalists begin to look with a more favourable eye towards the capabilities of this fine country. The methods adopted in Spain, in working mines and smelting, are the same as have been pursued for centuries; but, on the introduction of railways and British capital and enterprise, this must give way to more modern and improved methods, and it is highly probable that a few years will witness the commencement of an entire new era in metallurgical pursuits. In Biscay, at present, the iron manufacture is carried on by charcoal and the sledge hammer; what artificial power is employed is hydraulic, and the steam-engine is looked upon as a sort of mysterious agent, of which at present the inhabitants are almost totally ignorant. In this province, coal is entirely wanting; but in the Asturias the iron ore and bituminous fuel are contiguous to each other, enabling the manufacture to be carried on the same as in England. The coal is of a very superior quality, equally suitable for smelting or domestic purposes; and it only requires the construction of a few good roads to the sea-side, and the nearest towns, to develop the full resources of these mineral beds. Spain at present not only consumes nearly the whole of the iron she produces, but is obliged to import the better sorts from England; and it is gratifying to observe, that considerable enterprise is apparent among the forgemasters of this particular province, as well as others; in Alava, there are from 25 to 30 furnaces; in Guipuscoa, about 40; and about 25 in Navarre; these all employ the ores of Somorostro, mixing a small portion of an inferior ore found in the respective provinces. In the furnaces of Montaña and the Asturias, the Somorostro ores are also employed, and a large quantity is also sent to the port of Rosas, in Catalonia, for the furnaces of Figueras, at the foot of the Pyrenees. Mining is evidently advancing in Spain; and confidence being restored, and with the continuance of internal peace, and a friendly relation with foreign powers, her immense natural resources may be made available to the necessities and comforts of her population. Previous to the civil wars, according to official returns, the quantity of iron produced from the mines of Somorostro, averaged from 800,000 to 900,000 quintals (112 lbs. each); it is placed in depôts, close by the river's bank, from whence it is transferred to sailing barges, these carry it to the ships, which convey it to the various Biscayan ports. Some portion finds its way thither by land carriage. The four provinces of Biscay, Alava, Guipuscoa, and Navarre, have 60 tilt hammers for working iron, and 15 employed solely on steel, with the necessary furnaces; and it is calculated that these provinces annually produce 250,000 cwt. of iron, which is chiefly employed in the manufacture of horse-shoes, nails, railings, hatchets, and agricultural implements, and the remainder is exported to America and other countries. The average rate of cost is about 18. 8d. per quintal (*macho*) of 155 lbs., and of steel 6s. to 7s. per arroba of 25 lbs.; both are of excellent quality, and suitable for agricultural implements, and tools of all descriptions. The furnace of Puente Novo, near Bilbao, is an extensive undertaking, and likely to turn out an immense quantity of metal; it is fitted up with steam-engines and implements from England, and will be able to produce the finished material at less cost than the old forges of Spain. The hall of this establishment is 168 ft. in length, and 71 ft. broad—and it had cost, up to 1844, 32,000 £; since which time there have been many additions and improvements, which will make the outlay 40,000 £. Some of the machinery is moved by three large water-wheels: one of 10-horse power drives a tilt-hammer of 4 or 5 tons weight, a large and four small flattening machines, and a very large cutting machine; another is of 60-horse power, for making larger iron, and works a circular flattening and cutting machine; and the third is 120-horse power, which works the blast and various other machines used in the foundry. There are four puddling-furnaces, consuming 15 tons of coal every 24 hours, and four others are being erected; the quantity of iron manufactured here is about 200 quintals in 24 hours, and it gives employment to 80 or 90 men, who receive from 1s. 3d. to 2s. 1d. per day wages, and a few of the most clever receive better pay, and consist of both English and French; and when the undertaking is thoroughly established, it will employ from 200 to 250 workmen. They have as yet no blast furnaces at this factory; but should they at a later period decide upon smelting, they will have every facility for working, having a mountain rich in ore on the opposite side of the river. Notwithstanding this progress making, the iron trade of Spain has a host of severe competitors in the English ironmasters, and many of the Spanish manufacturers have applied to Government for a special protection, in the shape of high protective duties on the importation of British iron and other metals, to which suggestions the Minister of Public Works, Commerce, and Mines, has hitherto turned a deaf ear, and the Government will not encourage a monopoly of any description. Ore of every description, and wood and coal, is abundant, at extremely low prices; the great drawback to prosperity is the heavy cost of water and land carriage—notwithstanding which there is every prospect of the various localities, where iron-works are situated, giving active employment to the population, as when the projected railways are commenced, a continuous demand, extending over a number of years, will, doubtless, be the result.

THE IRON TRADE OF FRANCE.—The researches which have been so energetically pursued in France, for the discovery of iron ore, have, in the department of the Moselle, been partially crowned with success. Beds of iron ore are now known to exist, extending from Luxembourg to the mountains of the Vosges, and, probably, far beyond; these have long been worked in particular localities, but, within the past three months, extensive works have been opened from the village of Moulins, along the valley of Mance, on the banks of the Moselle. The results are highly favourable—the ore is rich, and highly fit for the manufacture of rails, and is giving employment to a large number of the population. The furnaces used in this department produce upwards of 12 tons of metal per day; and allowing 250 working days in the year (holidays are kept on at least 100), the produce may be taken at 3000 tons for each furnace per annum; 21 furnaces will, in a short time, be in blast, which in five years will furnish at least 315,000 tons of cast-metal. Extensive researches are also being made for the beds of coal believed to exist in the Lower Seine, and 40,000 ft. have already been subsided for defraying the expenses of boring, &c. The report of the committee is highly satisfactory as to the nature of the strata, and very sanguine expectations exist as to the result.

GUNPOWDER.—The exportation of British gunpowder was formerly prohibited, but such restriction has been discontinued for some years past; and at the present time a French barque is lying at Erith, loading with this destructive material: she will take in a cargo of 4000 barrels, which has been supplied by Messrs. Hall, the gunpowder manufacturers of Davington, near Faversham.

IMPROVEMENTS IN SMELTING—BLOWING MACHINE.

The blowing machines hitherto employed for maintaining a high temperature in smelting furnaces, have always been subject to considerable irregularities in their working, the cause being attributable to the principles on which they have been constructed. In the use of the bellows, and, more recently, iron cylinder blowers, these defects are so great as to require the addition of other apparatus for their correction. Their motion is alternate, and as the force of the current of the air they create varies in intensity also—the process of smelting is very much retarded—and the smelting point kept at various degrees of temperature, instead of a constant one. The motion of the piston within the cylinder is sufficient to account for the unevenness of the blast, as the air beneath the piston gradually becomes more and more condensed as it goes on, and its elastic force made to vary in proportion. Regulators are in general costly machines, and they have failed to correct the varying action of the cylinders, the old defects of which have still to be remedied. Another defect is the alternate succession of the currents from several cylinders, which no regulator can prevent; and a third is the imperfection of the regulators themselves, which require a great power to work, a great space to stand in, and a large expenditure to keep in order. Their disadvantages are well-known to smelters, and are particularly felt when the furnace is loaded with ores reducible only at very high temperatures, and when fuel is employed which does not readily decompose. In the dipping of the layers, and in several other incidental obstructions, they are also experienced very inconveniently. One of the worst consequences resulting from these circumstances is the lowering of the temperature of the smelting point during the intervals of the blast. The surface is not, therefore, kept at the white heat necessary to reduce the oxide of iron, and no perfect union of carbon and oxygen can take place. These results find their proof in the fact, that too many ashes are deposited. To obviate these serious imperfections, a new blower has been invented, we understand, by M. Heinrich Beinhauer, smelting-factor, of Sombrun, near Elberfeld, in Rhenish Prussia. This apparatus is said to give a constant pressure, as indicated by the anemometer, and to require no regulator whatever. M. Beinhauer states that he has been led to the construction of this apparatus, having witnessed the great failure of the attempt made on the Rhine and in Westphalia, to employ coke in smelting, the compact texture of which renders it more difficult of decomposition than charcoal. The blast produced by the new blower is sufficient to pervade the column of a smelting furnace with equal intensity at all points and times. A machine of this kind, measuring 11 ft. 6 in., by 22 ft. 9 in., with a pressure of 40 ozs. on the square inch, and a horse power of 70, will furnish 6028·8 cubic ft. of wind per minute, and after that rate for smaller dimensions.

IMPROVEMENTS IN THE MANUFACTURE OF IRON.

[Specification of patent granted to James Palmer Budd, of Ystalyfera Iron-Works, Swansea, merchant, for improvements in the manufacture of iron.]—*Newton's London Journal*.

This invention relates to the employment of the flame from blast-furnaces for heating the air which is supplied to such furnaces, and thus reducing the cost of making iron. The improvements consist in making lateral openings out of a blast-furnace into a contiguous chamber, furnished with a chimney or means of obtaining a draft, and placing suitable pipes or apparatus for the passage of the blast of air, in order that the same may be heated and conducted from the heating apparatus to the tuyeres.

The mode of carrying out this invention is as follows:—Two rows of three, four, or more openings, are made around the blast-furnace, and there is a flue formed for each row, to conduct the flame, that passes out of the furnace through the openings, into an adjoining chamber, containing the apparatus for heating the blast of air; such chamber being built as near as possible to the furnace, so that the flame may pass freely into it, and being closed at all parts, except where it opens into a flue or chimney, which should rise above the tunnel-head of the furnace, for the purpose of creating a good draft through the chamber. In order that the interior of the chamber may be easily repaired, a door is provided at any convenient part; and if the chambers should get too hot, by opening this door the draft will be reduced, and the heat of the chamber will be of course diminished.

When several blast-furnaces are built close together, a chamber is constructed between every two adjoining furnaces; and in this case the flues leading from the openings to the chamber will not pass all round each furnace, but each set of flues will extend half round, so as to conduct the flame, that passes out of half the above-mentioned openings, to a chamber between the two furnaces; the flame issuing from the remainder of the openings being conveyed, by another set of flues, to a chamber on the opposite side of the furnace: thus the flame will not have to travel so far as when the flues entirely surrounded the furnace, and conduct the whole of the flame into one chamber. Where this arrangement is adopted, the patentee prefers that the heated blast from the several chambers should pass into one main pipe, and thence to the tuyeres of the different furnaces. He states, with regard to the openings in the blast-furnace, that 12 openings, 18 in. high and 18 in. wide, leading into two flues around the furnace; above the boshes and below the tunnel head, are sufficient; the flues opening into a chamber of a suitable size for containing the requisite pipes or apparatus for heating the air.

The patentee says he is aware that it has before been proposed to form lateral openings out from blast-furnaces, for the purpose of conducting off, by means of pipes or passages, the gaseous products from the upper part of the furnaces, with a view of obtaining inflammable gas, to be ignited at a distance from the furnace from which the products are taken; he does not, therefore, claim the making lateral openings in blast-furnaces, unless combined with a chamber or chambers, so contiguous to the blast-furnace that the flame from the furnace, by the aid of the draft through the chamber or chambers, may pass amongst and heat the pipes or apparatus contained therein, through which the blast of air is passed to be heated. He is also aware that it is not new to heat air for the purpose of hot-blast by the means of the flame passing off from a blast-furnace, as pipes or apparatus have been applied to or over the tunnel-head of the furnace; and he is likewise aware that the heat of the lower part of a blast-furnace has been applied as a means of heating air, by placing pipes or apparatus in the interior of the brick-work or masonry at that part; but in such case there were no openings from the interior to the exterior of the furnace, nor any means of obtaining draft, to cause the flame to pass laterally out of the furnace. What he claims is, the mode of heating air for the manufacture of iron, as above described, whereby the flame passes out laterally from a blast-furnace into an adjacent chamber or chambers, containing suitable pipes or apparatus for the passage of the blast; the flame being urged through the chamber or chambers by the draft of a chimney or other means.

[Specification of patent granted to James Palmer Budd, of Ystalyfera Iron-Works, Swansea, merchant, for improvements in the manufacture of iron.]—*Newton's London Journal*.

This invention consists in the application of clinkers, produced by the combustion of coal, to the manufacture of iron.

The clinkers may be obtained from works where large quantities of coal are burned in furnaces or smiths' fires; also from the waste heaps of small coals which have been burned down at various coal-mines, in order to reduce the bulk of such heaps; and from the waste ash-heaps of various manufactories, which having been burned down, a substratum of clinkers is formed near the bottom of the heaps. Clinkers, being of a light porous nature, and containing a large proportion of earthy matters, are peculiarly suitable for use in the blast-furnace with the rich oxides of iron, whether the latter consist of the clinkers obtained in the various branches of the manufacture of malleable iron, or of the rich iron ores called hematites, which are of great specific gravity, and contain only a small proportion of earthy matters. The advantages arising from the admixture of the clinkers with the rich oxides of iron in the furnace are, that they will lessen the density of the whole, and facilitate the passage of the blast, and also supply the proportion of earthy matters required for the perfect separation of the iron.

In charging the blast-furnace, the patentee generally combines the clinkers with rich iron-stone, cinder, or ore: as the quantity of iron contained in different kinds of clinkers varies, exact directions cannot be given for the use of every quality of clinker; but the rule laid down by the patentee is, that if the clinkers are rich in iron, he employs a less quantity thereof than when they are comparatively poor; and he combines the iron-stone, cinder, or ore with the clinkers in such a manner, that the charge fed into the furnace will contain less than 50 per cent. of iron. In all cases where the clinkers have less than 45 per cent. of iron, a richer material, such as the cinder of malleable iron-works, or rich iron ore, should be used therewith, to bring up the iron in the charge to about that per centage; but if the clinkers contain from 40 to 50 per cent. of iron, a mixture of richer materials is not necessary, and clinkers may also be used alone, when it is inconvenient to mix other materials with them. When the furnace is being charged with the mixture of clinkers and ore, or clinkers alone, the fuel and fluxes are added in the same manner as if ores of like per centage were being operated upon.

The patentee claims the application of clinkers, arising from the combustion of coal, in the manufacture of iron.

GUN COTTON AS APPLIED TO MINING.—Mr. R. Oxland, the chemist of Plymouth, has made some experiments with the explosive cotton, at Cattedown Quarries, which, in addition to Mr. Taylor's experiments in the mines of Cornwall, have completely established its perfect success for blasting. Two large blocks of limestone, weighing a ton each, projecting out from the mass of rock, were prepared, by boring a hole in each to the depth of 11 in.; 2 ozs. of powder were placed in one, and 1 oz. of cotton in the other, and, when exploded, the powder merely split the block in half, while the cotton tore the stone to atoms. In a second experiment, on a rock weighing 2 tons, the hole was 10½ in. deep, and 1½ in. diameter, into which 4 oz. of cotton was placed, and it was equally successful.

HALIFAX AND QUEBEC RAILWAY.

We learn that the present Colonial Minister (Earl Grey) is earnestly following up the measures initiated by his predecessor (Mr. Gladstone), for obtaining accurate data relative to the probable cost and remunerativeness of this great national undertaking. Lieut. Henderson, R.E., and Capt. Pilon, R.E., are prosecuting the survey in two different directions, in order to come to a determination as to the best route to be adopted; and the propositions of the projected company are now under the serious consideration of the Government. Considering the vast field for employment to be opened up by this work, and the intensity of the present crisis, which renders it so desirable to avail ourselves without delay of the opportunity thus presenting itself, we are surprised that the British Government, or British capitalists, do not at once act upon the approximate estimates, which have been already furnished by the surveys of Sir James Alexander and others, and at least commence that portion of the line from Halifax towards the Bend and Newcastle, which is, from its population and increasing commerce, certain to afford a large return, and to develop the immense resources of Nova Scotia. Even as regards the transport of timber alone, when we inform our readers that 200,000 tons have been rafted to one port during the last year, at an expense of 5s. per ton, and loss in rafting equivalent to twice that sum, which, by railway, would reach the port at a cost of 10s., and in seven hours, instead of seven days—we exhibit a mutual benefit to colonists and capitalists, sufficient of itself to justify the step we suggest. We say nothing of the probable stimulus to trade in other departments, from the establishment of a certain and constant outlet in the place of the uncertain and dangerous channels of the St. Lawrence and other rivers, closed for six months in the year by the frost, and, above all, the incitement and encouragement to systematic colonisation which would be forthwith insured, and would soon render the waste lands to be granted to the company nearly equivalent to the capital proposed to be invested. We subjoin two very important documents upon the subject of this projected line of railway; and we may mention, that the approximate estimate of the cost hereto appended, has been confirmed and corroborated by practical men long resident in the districts to be traversed, and acquainted with the details and mode of construction followed in the United States:—

Report of Sir James Edward Alexander, dated Montreal, Jan. 5, 1846.

I have had the honour of receiving your letter of the 29th ult., requesting, in the name of the committee of correspondence of the Halifax and Quebec Railway General Committee, that I will furnish information on the following heads:—1 and 2. The level afforded from Halifax to the St. Lawrence; the summit elevation of any intervening hills; what the rise may be in 100 feet or yards; the agricultural capabilities; the nature of the timber; the mineral resources, whether coal, iron, or salt, &c. When, in 1844, three officers (Lieut. Simmons, R.E., Lieut. Woods, 81st Regiment, assistant engineer, and myself), acting under the directions of Col. Holloway, C.B., commanding the Royal Engineers, in Canada, and, with three assistant surveyors and 30 men under us, explored, surveyed, and reported on the country, between the head of the Petriodale and the Riviere du Loup, St. Lawrence, we did so, with a view to the formation of a military road, to connect Halifax with Quebec, and not a railway; a different sort of survey than ours was necessary for a railroad—still ours was as carefully executed, as the nature of the circumstances would admit of. I may here remark, that it appears, by the map accompanying the report of the provisional committee, at Halifax, that the line proposed for the railroad is the same as that which was explored with considerable trouble and expense for the military road, and at the cost of the Imperial Government, yet this was not acknowledged in the report. This oversight I took the liberty to point out to Mr. J. Bunick, M.P.P., Halifax, secretary of the provisional committee, in answering at some length, last month, a letter of his, also requesting information. The reports of the officers, who made the explorations and surveys, for the proposed military road, could not be communicated, in answer to your queries. I propose, therefore, to confine myself to some general remarks, in answer to your queries. I have submitted this matter to Col. Holloway, and he sanctions what I now write. Proceeding from Halifax to the head of the Petriodale (180 miles), by Truro, and skirting the Cobequid Mountain, there are, I believe, no great engineering difficulties; the soil is exceedingly productive about the head of the Bay of Fundy, and the road would cross the coal measures of Pictou. From the head of Boistown, 84 miles, on the Miramichi, north of Fredericton, the country is generally level, and well adapted for a railway. There are very fertile tracts in this distance covered with hardwood, and there are also "barrens" nearly bare of timber, and towards their centre swampy. The rivers are the New Brunswick, Salmon, Gaspeaux, and Cain's, which are not difficult to cross by bridging; the broadest, the Cain's, on the line of the road, is 300 feet wide. From the head of Boistown is still the coal-field, as may be noticed in the geological map, which accompanies the *Travels of Lyell in North America*. It appears that the coal-field in the eastern part of New Brunswick and Nova Scotia extends over a surface of 9000 square miles.

The rich island of Cape Breton is black with coal, and has a good supply of gypsum, as has also Nova Scotia. Prince Edward's Island is a coal-field, so are the Magdalen Islands, and the western parts of Newfoundland. Mr. Logan, the provincial geologist of Canada, can find no coal in the whole of Canada, and no gypsum in Canada East; yet it is satisfactory to know that, within our own province, there is the mineral wealth just noticed. From Boistown to the Grand Falls of the St. John's (70 miles), there is a considerable variety of surface—good, kind, and indifferent; there is a belt of granite running across New Brunswick, from S.W. to N.E., from the Foklok River to the Bay of Chaleur, which would require to be crossed by the road, and where, from the nature of the rocks, there might be some expensive cuttings. Yet, by judiciously winding the line among the hills, it is believed that no insurmountable difficulties would occur.

About the Grand Falls the country is exceedingly fertile; it is undulating, and covered with hard wood. It has been wisely proposed to found a city at the Grand Falls (Colborne). A steamer this last summer reached the Falls; and, among other advantages near this, is that of the gypsum of the beautiful river and valley of the Jobique. A bridge over the Jobique, the broadest river in the route, would be 300 feet long; fortunately there need be no ferries on the whole route, Halifax to Quebec.

After the Grand Falls to the Riviere du Loup (100 miles), there is a considerable distance level; about the Green River are some considerable elevations, also east of the Temiscouata Lake. My friend, Prof. Renwick, of Columbia College, New York, and lately a commissioner for determining the north-east boundary, showed me, in the winter of 1841-2, carefully executed sections of all this country, showing the elevations, as ascertained by the barometer; and it might be worth while to get a copy of these sections for the Government at Washington. A very careful examination of the country, east of the Temiscouata Lake, would be required for a railroad; here there was more difficulty in finding a line adapted for the proposed military road than on any other part of the route. Once at the port of the Riviere du Loup (114 miles from Quebec), the rest is easy, nearly a dead level, through an agricultural country, containing 100,000 inhabitants. I think it would be always advisable to have in view the continuation of the railway to Montreal, 180 miles—say, total distance Halifax to Montreal, 700 miles. It is highly advisable that Montreal should communicate really with an Atlantic port within the British provinces; and that, besides the mails, our emigrants should be transmitted through British territory only. As to the agricultural capabilities on the line proposed, they are undoubtedly very considerable; emigrants, judiciously selected at home, duly "ticketed" for certain localities, and settled in communities, would no doubt thrive as farmers, for they could readily bring their produce to rivers, and with a grand central railway trunk, with branches, to the mouths of the Restigouche, Miramichi, and Richibucto, to the Grand Falls, to Fredericton and St. John's, the settlers would have every needful facility for communication. In a pamphlet, published 200 years ago, by an ancestor of the present writer (and whose grant from King James I. extended over the whole of New Brunswick and Nova Scotia), some useful information may be found for the settlement of ancient Acadia. As to the trees on the line, they comprise the usual varieties of the North American forest: of the coniferous tree species occur in New Brunswick and Nova Scotia; the balsam of Gilead, fir, hemlock, black spruce, red pine, white spruce, pitch pine, grey pine, white pine, black larch and red larch; also I saw maple, oak, elm, birch, beech, poplar, dogwood, &c., &c.; also abundance of the wortheberry, raspberry, and cranberry. Thousands of pine logs pass over the Grand Falls yearly, and the timber trade of Miramichi has long supported a considerable population.

The third head into which our queries are divided, is—the facilities of constructing the railway, whether piers can be driven, and rails laid on them? Materials are to be found everywhere for constructing the railway—that is, gravel for a good foundation, and sleepers on which to place the rails. The railway which I have examined in the United States cost \$200,000 per mile; but, it is believed, if timber is proposed for rails, with material of pine, \$100,000 will suffice; piers might require to be driven here and there on the "barrens." The average annual expense in the States for clearing a line of snow, with snow ploughs attached to heavy locomotives, is \$5000 per 100 miles, in 1845. 4. The probable traffic, enumerating the various merchandise, with a table of the freights, by the navigation of the St. Lawrence at present, as to England? All these queries can be better answered at Quebec than here. In conclusion, I beg to say, that I consider a railway from Halifax to Quebec and Montreal, more a great national undertaking than as one for private enterprise only. Emigrants being extensively introduced in Nova Scotia and New Brunswick might help to form the line, and eventually to make it pay, whilst the British power would be consolidated in this country generally, by facility of intercourse, of the advantages of which our neighbours are well aware.—J. E. ALEXANDER, Esq.

APPROXIMATE ESTIMATE, by Mr. Valentine, Mem. Inst. C.E., based upon Sir James Alexander's Report, on various information furnished, in correspondence with Mr. John Grant, of the Survey-General's Department, in New Brunswick:—

42,240 yards cutting, at 9d., 15 ft. wide—slope 1 in 1	£1584	0	0
8,020 feet wood, at 6d.—Paym'd	200	10	0
704 perches fence, at 3s.	105	12	0
587 tons bolts, at 1s. 6d.	44	0	0
5,360 wood screws, at 1d. each	536	0	0
1 bridge in a mile	176	0	0
Ballasting, at 2s. per yard	300	0	0
Iron plate	100	0	0
Sidings, &c.	100	0	0
Laying rails	100	0	0

Contingencies, 10 per cent. 299 16 3

Total £3297 16 3

RAILWAY FOG SIGNALS.—The signals which have hitherto been used on the lines of railroad in foggy weather, it is well-known, have proved very inefficient, and, consequently, frequent complaints have been made by those entrusted with the management of this important department. It is with great satisfaction, therefore, we announce that a new invention has been introduced, well adapted to supply a deficiency which has long proved a great evil—we allude to a simple apparatus, denominated "Fog Signal." It consists of detonating powder made up in a circular form, firmly secured by tin-plates. Being about 2 in. in diameter, it is placed on the rail, two strips of lead being employed to keep it firm in its position. In night or day travelling, when the weather is foggy and the ordinary signals are not to be discerned, this fog signal is placed on the rail. The moment the force-wheel of the engine presses it, an explosion takes place as loud as a small cannon. The great value of this signal consists in its extreme simplicity and in its unerring principle! For no sooner is the report heard by the engine-driver, than he applies the brake and the train is stopped. The signal has been introduced by Mr. Martin on the Eastern Union line.—*Essex Herald*.

THE IRON AND COAL TRADES OF AMERICA.

The committee of the Iron and Coal Association of Pennsylvania have made a report, for 1846, on the statistics of the produce of these minerals in that state, from which it appears that a large increase is taking place in these products. By the census of 1840, the number of furnaces was 213, and 169 rolling mills, bloomeries, and forges; in March, 1842, returns were procured from 72 charcoal and 7 anthracite furnaces, producing, in the aggregate, 84,885 tons, and employing upwards of 4800 men; 30 rolling mills produced 20,800 tons of bar-iron, 2400 tons boiler plate, 1200 tons sheet, 10,020 tons nails, and employed 1643 men and 54 furnaces in this production, or an average of 1074 tons per furnace; the largest of these, Messrs. Shoenberger and Co., produced 2081 tons, and the others ranged from 1200 to even as low as 35 tons. The entire produce of pig-iron, in 1842, was 151,885 tons of pig metal; there have been erected since, 65 new furnaces, which produced, in 1845, 31,414 tons, and employed 1687 men and 740 horses, and calculated to produce, in 1846, 78,100 tons, and to employ 4230 men and 2200 horses, and 7 additional furnaces. Twenty-eight anthracite furnaces produced, in 1845, 22,844 tons of iron, and were calculated to produce, in 1846, 107,200 tons, and 15 anthracite rolling mills manufactured about 43,000 tons of plate and railroad iron; the whole amount of iron, to be manufactured in 1846, is estimated at 216,171 tons, or an increase of 100 per cent. over 1842, with a capital of \$20,190,658, employing men, women, and children, to the number of 170,060. These returns certainly speak well for the energies and perseverance of the people of America; and, should the production keep pace with this increase, she will probably be able to supply her population, without importing from England, as she has hitherto done; and as to economy, it is represented as having been produced at even a less price than it could have been procured, free of duty. In the rail trade alone there are 60 houses, which produced, in 1845, 1,062,000 kegs.

With respect to the coal trade, we find that, in 1842, only 572,000 tons of anthracite were sent to market; while, in 1845, the quantity was nearly doubled, being 1,132,000 tons; and the capital employed in railroads and collieries, which, in 1842, was estimated at \$17,526,000, had increased, in 1845, \$9,330,000, being \$26,856,000. The committee, in concluding their report, express their regret that the absence of any organised plan for registering data, by which statistical information can be obtained, prevented their extending their remarks; and strongly urged the necessity of preserving their organisation, and use every effort to keep correctly the statistics in relation to these sources of national industry, as it was evidently clear that Government would not establish a board for the purpose; and it must, therefore, be procured by the industry of individuals, inspiring each other with that zeal necessary for carrying out so useful an inquiry.

IMPROVED BORER FOR WELLS, &c.—Messrs. Speakman and Stratton (of Philadelphia) have obtained a patent for a new instrument for boring into the earth; it consists of a hollow tubular shaft, at the lower end of which are the cutters, so arranged, that by a handle at the upper end, connected by wires to them, they can be drawn within the tube, for the purpose of withdrawing the borer; when working, they project beyond the edges of the shaft, and thus always form a hole larger than itself, and by withdrawing them within the hollow, the tube is more easily withdrawn, having no pressure from the surrounding earth.

IMPROVEMENTS IN THE HOT-AIR FURNACE.—G. Chilson (of Boston, U.S.) has patented a new construction of furnace for the hot-air blast; the furnace is dome-shaped, with an inner and outer chamber; the cylinder of the fire chamber is connected by a passage with the central hot-air chamber, through which the heated air is discharged, and the air in the two chambers is distributed over a greater extent of heating surface, than by any other arrangement hitherto known. The cast-iron top plate of the ash-pit is made with cells, filled with non-conducting materials for the fire-place to rest upon, and thus prevent its cracking by the heat, which would be conducted to it by the common arrangement.

DEMERARA RAILWAY COMPANY.—We understand that the committee of management have obtained from the local authorities of British Guiana an Act of Incorporation, by which the most ample powers are vested in them for carrying out this important project. Mr. Catherwood, the company's engineer, has just returned to this country, having fully completed all the necessary surveys; he has made a report to the directors, accompanied by plans and sections, and which have been approved by Mr. Locke, the consulting engineer, from which it is confidently expected that the line can be completed for 30 per cent. less than originally estimated; and from the nicest calculations which have been made since the publication of the prospectus, and, from having been made at leisure, can be better relied on than those made on the formation of the company, there is every reason to believe that the traffic returns will be considerably more than was at first contemplated. The registration of the shares is now taking place, which will be completed by the 30th inst., immediately after which the first general meeting will be called, when the reports, plans, and estimates, will be laid before the shareholders.

DRAINING OF THE LAKE OF HAARLEM, THE HAGUE, NOV. 3.—When the trial of the engine called the *Leegwater*, all the parts moved with great regularity, and the eleven pumps, at every stroke of the piston, raised 66 cubic metres of water. Though every time such a mass of water was raised the engine was subject to a pressure of more than 200,000 kilograms, hardly any shock was felt in the vessel, and the only noise that was heard was that made by the flowing off of the waters that were raised by the pumps. The number of strokes of the piston was about 1 in a minute. The water was raised to the height of 1.30 to 1.60 metres, and the pressure of the steam in the boiler was from 30 to 35 lbs. English. If it should be necessary in draining the Lake of Haarlem to raise the water from a greater depth, the force of the steam engine may be safely increased by 70 lbs. English, and by this means the celerity of the play of the pumps might, perhaps, be increased. At present, taking the operation as it was on the 1st of Oct., this steam-engine is able to raise, deducting the loss, 450 cubic metres per minute, or 648,000 in 24 hours, which is about 45,000,000 of ordinary pails; the power of the engine may be estimated as equal to 300 horse power. Whatever be the quantity of coals employed to obtain so great a power, the expense may always be diminished by the continuance of the operation. A former experiment has always proved that no more than two kilog. of coals per hour was necessary to obtain one-horse power, whereas seven kilog. of coals were required for the old engine employed at the Zuidplaspolder. Notwithstanding the important saving of coals which the *Leegwater* affords, the engine still requires 200 bushels of coals to obtain the result expected from it.

STIRLING AND DUNFERMLINE BURGH.—We have learned with much pleasure that Mr. Alison, of Oakley, has a fair prospect of being returned as representative of these Burghs, at the next general election. We see it stated in the *Times*, that nearly one-half of the constituency has declared in his favour, and we know through other sources that this is correct. Mr. Alison is a man of independent political opinions, of Christian profession and character, and the advocate of every good object, to which he contributes largely of his means. It is such men whom we need in Parliament: Mr. Alison, we believe, employs at Oakley, some 2000 workmen, and pays out about 1000£ weekly in the shape of wages. His extensive connection with trade must lead him to take a deep and intelligent interest in the commercial affairs of the country.—*Witness*.

NEW PATENTS AND REGISTRATIONS.

Extracts from the Mechanical Magazine Weekly List of English Patents:
G. W. Eddy, Waterford, New York, for an improvement in the manufacture of cast metal wheels, for railway and various other carriages.
H. C. Wetterstedt, Rhodes Well-road, Limehouse, for improvements in the manufacture of sheet metal, for sheathing and other purposes, in preventing the corrosion of metal, and in the preservation of wood and other materials.
W. Exall, Reading, Berks, engineer, for improvements in the construction of wheels, and in certain implements or tools employed therein, and in the mode of forming and manufacturing the tires of wheels, which mode is applicable to making metallic rings, bands, hoops, cylinders, and other similar articles.
A. V. Newton, Chancery-lane, mechanical draughtsman, for certain improvements in the manufacture of driving bands, part of which improvements are applicable to the manufacture of other fabrics.
M. Le thy, Great George-street, Westminster, C.E., for improvements in steam-engines.
F. H. Maberly, Stowmarket, clerk, T. Branwhite, Rattlesden, millwright, and D. Lusher, Great Finborough, farmer, all in the county of Suffolk, for improvements in machinery for obtaining and applying steam, and for retarding, motive power, and for giving notice of alarm in expectation of, or in actual, danger.

MINE ACCIDENTS.

Over Darwen, near Preston.—J. Rainforth, aged nine years, was killed, while working with a companion, aged ten years, in Messrs. Brandwood's colliery.
Accident from Blasting.—As M. Bowden, G. Tripp, and P. Penhalurick, after boring a hole for blasting in a rock of granite, and charged it with about 3½ lbs. of powder, tamped it up, and set fire to the safety fuse; but, by some means or other, the charge did not go off. Tripp then began to pick out the tamping; and after he had picked out about 5 or 6 in. he desired Bowden and Penhalurick to pick out the remainder, whilst he went for some more powder. Instead of doing so, however, they attempted to bore it out, which is a more expeditious but a far more dangerous proceeding; and whilst thus employed, the charge exploded. Bowden died from the injuries he received, and Penhalurick is likely to recover—but it is feared that he will lose the sight of both eyes.
Mountain Level, Pontypool.—R. Dobbs was killed by a fall of roof.
Caradoc Colliery.—A poor fellow (having a wife and 10 children) was struck blind by a premature explosion, in blasting; another lost the sight of one eye.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

TUESDAY... Trevelick and Barrier Mining Company—on the mine.
WEDNESDAY... Newmarket and Chesterford Railway—London Tavern, Twelve for One.
THURSDAY... Imperial Continental Gas Association—offices, at Two.
FRIDAY... United Hills Mining Company—offices, at One.
SATURDAY... West Wheel Maria Mining Company—on the mine.
[The meetings of Mining Companies are inserted among the Mining Intelligence.]

REGENT'S CANAL COMPANY.—A special meeting of this company took place on the 6th inst., at the company's offices, Regent's Canal Basin, for the purpose of considering the propriety of applying to Parliament in the next session, for an Act for making a line of railway in connection with the Regent's Canal Company.—Mr. BETHUNE took the chair, and urged the propriety of making the line, with a view to protect themselves from injury from any railway company unconnected with the canal interest; the committee thinking the late report of the commissioners held out encouragement to them to assist in the formation of the proposed railways surrounding London and connecting the goods stations, and being now freed from any liability towards the Regent's Canal Railway, who had forfeited to them 6000£, requested Mr. Rendell to survey a line in the direction most advisable for the interest of the canal proprietors, which was one to go from Paddington to Limehouse, with a branch to the West India Docks, which (he estimated) could be made for 685,000£. The length of such a line would be about 8 miles 7 furlongs, and it would be mostly along the banks of the canal, and, when diverted, could be made at a trifling cost. The recommendation of the committee was, that proceedings should be at once commenced, with a view to obtain an Act of Parliament for the purpose in the next session.—The CHAIRMAN moved the adoption of the report, which was passed unanimously.—A discussion took place, in which Mr. Green, Mr. Robinson, and others, took part.—The CHAIRMAN said, they had power to make the railway already, but not to join the Great Western. The shares of the railway would be appropriated to the canal proprietors.—A vote of thanks was then passed to the chairman, and the meeting adjourned.

BANK OF CEYLON.—The annual meeting of shareholders was held on Thursday last, at the company's offices, New Broad-street.—THOMAS YOUNG, Esq., in the chair.—The SECRETARY read the report, which congratulated the proprietors upon the satisfactory affairs of the bank. At the last annual meeting the directors had obtained the consent of the proprietors to enlarge the capital, but the state of the money market at the close of the last year induced them to alter their resolution, and to husband their resources by confining their sphere of operations. The capital had since proved equal to the legitimate wants of the community, and the directors, therefore, postponed for the present any issue of new shares. The result of the year's business enabled them to pronounce a half-yearly dividend of 3½ per cent., being 7 per cent. per annum. By the statement of accounts it appeared that the paid-up capital amounted to 125,000£, and the undivided profits on the 30th June, 1845, to 18,784£ 4s. 7d. To the latter sum was now to be added the profits of the past year, ending 30th June, which amounted to 11,425£ 2s. 9d., and would leave to the credit of "profit" a gross sum of 26,209£ 7s. 4d. Out of this the dividend would be paid, amounting to 7875£, leaving a balance of undivided profit on the 30th of last June of 18,334£ 7s. 4d. The report was agreed to, and the meeting separated.

LONDON GAS-LIGHT AND COKE COMPANY.—The half-yearly meeting was held on Tuesday, at the Crown and Anchor Tavern, Strand.—W. BATHMAN, Esq., governor of the company, in the chair.—From the report, it appeared that the business of the company was progressively increasing since the last meeting. The directors proposed the same dividend as the shareholders had been in the habit of receiving for some time—namely, 6 per cent., clear of income tax. The statement of accounts showed that on the 25th of December, 1845, there was a balance of 10,132£ 10s. 3d. in favour of the company, which, together with 17,849£ 16s. 8d., the profit for the half-year ending June 30, 1844, left a total balance of 27,982£ 10s. 11d. to the credit of the concern. The amount due for rent light at the several stations was set down at 48,526£ 4s. The contingent fund now consists of 35,000£, in Exchequer bills. The report was received, and a dividend of 6 per cent. declared.

TRINIDAD GREAT EASTERN AND SOUTH WESTERN RAILWAY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In the *Morning Chronicle*, of the 27th October, there appears a letter from Mr. Giles Hall, the ostensible chairman of the so-called Trinidad Great Eastern and South Western Railway Company, in which he states that, at a "meeting of certain parties, purporting to be shareholders of the above company, many of the statements made were totally untrue, and have not the slightest foundation to rest upon." On reading this, I naturally expected to find in the sequel a satisfactory and clear explanation of the astounding charges which have been so publicly made against the directors of the proposed undertaking; but, on the contrary, not only was I greatly disappointed, but I was astonished beyond measure at the weak and meagre attempt which was made to refute these statements, and to remove the "unfavourable impression on the minds of the public." In fact, to use an expression in the letter in question, "it is truly ridiculous, and almost too contemptible to notice."

Mr. Hall observes, that "one example of the animus and character of the meeting is as good as a thousand;" and that, "therefore, the other assertions and assumptions, equally base and untrue, may be dismissed with the contempt they really deserve." This certainly is a very sweeping denial to make; but I am afraid he will find few to agree with him in such a doctrine. But, what is this "one example," upon which he places so much consequence? Nothing at all. It is unfortunate that Mr. Hall should not have opened his eyes a little wider. Did he not see the word about used to qualify the number of shares, which, it was stated, had been issued? It was not asserted, as he says in his letter, that 6000 shares had been issued properly, and that 20,000 had been issued improperly, but that about these numbers. And the object of the person, who made that remark, was evidently to show, that a large proportion of the shares had not been allotted, and the deposits paid, in the regular way. Could Mr. Hall not have found another example of the "animus and character" of the meeting, which would have suited his purpose better? Why did he not deny, that any shares whatever had been improperly issued?—and that all the shares in the market had been allotted, and that the deposits had been paid in full in the usual way? As to the loan from the secretary, it is only necessary to observe, that he first denies in toto that the company ever borrowed a farthing from him, and then admits that he knew nothing of "the transaction till months after it took place." There are many other remarks which I might make on Mr. Hall's letter; but these I will leave to be done by the proper persons, and in the proper place; one thing, however, is certain, which is, that the company, if ever, no longer exists—it is extinct. It died a natural death on the 19th of September last; and Mr. Giles Hall, chairman, as one of the executors, will, in due time, have to declare its last will and testament. To prepare such a document, it may be presumed, is the reason why he has removed all the books and papers from Nicholas-lane to his own office in the Temple.

I cannot conclude without observing that, in the last paragraph of his letter, Mr. Hall makes a statement, tantamount to an intention not to fulfill his promises made in his advertisements of February and of May last. Why were these advertisements issued, if it was not deemed "prudent and economic" to incur certain expenses, by altering the route of the line; and if that decision was not come too till afterwards, why were not the shareholders made aware of it? No notice will be taken of any further letters from Mr. Hall in the newspapers, as the time must soon arrive, when he will be required to give an account of his stewardship.—A SHAREHOLDER: London, Nov. 3.

GUN SAWDUST.—The following is addressed to the *Leeds Mercury*, by G. Turner, Richmond-street, Leeds:—"Having engaged myself to make some of the now far-famed gun cotton, I came at results by my experiments, which convince me that all fibrous or finely serrated vegetable materials can be made to produce an explosive compound, similar in many respects to gunpowder, being of not so easy manufacture as the gun-cotton. I here enclose to you a specimen of the proposed gun sawdust, which can either be tested by putting it into the fire, or sprinkling over your gas or candle. The preparation is thus:—Take of nitric acid of specific gravity 1.5 two measures; commercial oil of vitriol two measures also; pour the two acids into a tason, and then gradually sprinkle the sawdust until nearly the whole of the acid contained in the tason is absorbed. Cover your tason over with a plate to keep in the fumes from the acid. Allow the sawdust to remain in the acid for a space of 8 or 10 minutes. Pour then the tason as much water as it will hold, and the sawdust, by the action of the water, has become of a higher specific gravity, by which property the prepared sawdust sinks to the bottom of the vessel. Pour the water off, fill it again, and continue to wash until you, on tasting the water in the tason, no longer perceive acidity. Dry it then in a current of warm air; be careful not to allow your temperature to be too high; you may place it upon the oven if not too hot. When it is perfectly dry, it is ready either for the gun or pistol, &c. I think it is equal to Mr. Taylor's gun-cotton in every respect."

SCROFULOUS SORES OF TEN YEARS' STANDING CURED BY HOLLOWAY'S OINTMENT AND PILLS.—Mr. C. Brock, residing at Strandhill, Suffolk, had the whole of his breast in one frightful mass of scrofulous sores and ulcers, besides similar large ulcers on his hip. He had been thus afflicted for 10 years, and under the treatment of the greatest surgeons in the country; and was for a considerable time at the Worcester Infirmary, without receiving the least benefit. He, however, is another of the many who have been cured after every other means had failed. These celebrated medicines are equally efficacious in all cases of gonit and rheumatism, or contracted and stiff joints.—Sold by all druggists, and at Professor Holloway's establishment, 244, Strand, London.

NEWBRIDGE AND TAFF VALE COLLIERY.

GLAMORGANSHIRE.—2000 shares, at £10 each.

This valuable colliery is situated in the parish of Llanwano, in the county of Glamorgan, in the centre of the North Wales Mineral Basin, contiguous to New Bridge, 12 miles from Cardiff; and the Taff Vale Railway, from Cardiff to Merthyr Tydfil, runs through the property—granted, by a lease of 999 years, for the term of 31 years. The property is surrounded with profitable collieries—of which (Mr. Coffin) adjoins this, and supplies the Great Western Railway. Three veins are found to be throughout this property—the Goffion Vein, 3 ft. thick—the Cammor Vein, 3 ft. thick—and Coffin's Vein, 4 ft. 6 in. thick. These veins—proved by the usual computation—will yield an aggregate quantity of five millions tons. This, by working 800 tons per day, from one pit only, at a profit of 2s. 6d. per ton, will yield a clear income of upwards of £7500 per annum; but, as this rate of produce will last considerably more than twice the period of the lease, the colliery will be worked by more pits, and consequently, yield a profit of at least £30,000 per annum, at a cost of, say, 6s. 6d. per ton, and sale 6s. 6d. per ton; but Mr. Coffin obtains considerably more per ton; and, therefore, it is but fair to suppose the present company will obtain the same in which case, the profit will be upwards of £20,000 per annum. Even this large sum cannot be supposed to be too highly estimated, when it is recollected that the utmost cost is estimated at 6s. per ton, and the sale only at the moderate price of 8s. 6d. per ton—whereas all coal of the district is sold above the estimate, and that the Taff Vale Railway runs through the property—that the colliery is within 12 miles of the large shipping port of Cardiff—that the coal can be raised from the pit and directly placed on the railway wagons—and that the coal is known to be of superior quality for steam-engines, from the fact of its being used by the Great Western Railway. The colliery will be in full operation in about two years. For the first year the shareholders will receive a dividend of only 5 per cent. out of the first year's produce; but, as in the meantime, the Goffion and Cammor veins will be reached, and be in gradual increase of produce—the second year's dividends will be larger; and, therefore, there is every fair reason to say, this undertaking, not only carries the certainty of large profits, but presents fairer and more legitimate prospects of remuneration to the shareholders, than was ever presented to the public.

COST OF PRODUCTION AND CARRIAGE TO SHIPPING PORT.

Getting or Winning	..... per ton 1s 7d	Wear and Tear	..... 0s 3d
Underground hauling	..... 0 4	Railway Carriage to Port	..... 1 1d
Dead Wood	..... 0 8	Shipping Expenses	..... 0 6
Prop Wood	..... 0 1	Divers extra expenses	..... 0 3
Royalties	..... 1 0	Agency and incidental Charges	..... 0 2d
Total	..... 3s 6d		

Sale, 8s. 6d.—Cost, 3s. 6d.—Profit, 5s. 0d. per ton.

Application for shares, to be made to Messrs. Roberts, Carter, and Co., mineral surveyors, 21, Portman-square, Portman-square, where the engineer's calculations may be seen in detail (also a plan of the property, and conditions obtained).

Prospectuses (&c.) may be had at the office of the Mining Journal, 36, Fleet-st., London.

SILVER-LEAD MINES, ABERGWESSIN, BRECKNOCK-SHIRE.

1000 shares, of £10 each.

Counting-house on the Mines—Manager and Funder, Messrs. Couch and Fell, LONDON AGENTS.

Messrs. Roberts, Carter, and Co., 21, Portman-square, Portman-square.

These mines comprise the whole of the Nant-y-Moyn and Gwelligendda Estates, and also half-a-mile of the Trawant Estate; the whole comprising a run of nearly two miles on the course of five large lodes or veins, which have been wrought so productively in Lord Cawdor's mines.

The veins on this property are in a beautiful killas, firm, yet sufficiently soft to good standing and working ground. They are composed of gossans, flocks, prisms, pulverulent muds, &c., &c., and the high quality of one-eight, are returning great profits. The mineralization of the veins presents the same characteristics in each mine. In Lord Cawdor's mine, west, the veins are proved to have formed a junction at the base of the mountain; and a precisely similar junction of the veins is proved to exist eastwards, at the base of the mountain in the Abergwessin Mines, where the veins are all laid open at surface; three of these veins have been cut through by an adit level or tunnel, now continuing to cross-cut the other veins. This adit can be carried into the mountain 80 to 100 or more fms. deep, on the course of each vein. These mines have also the great advantage of being conveniently wrought at three several points.

It is intended to make connections from shaft to shaft by the cross drifts, which cut the lodes at the 10, 20, and 30 fms. level under adit; when dividends may be confidently anticipated, as the lodes in this property are richer at the same depth than they were in Nant-y-Moyn.

About a mile from these operations, and in this property, a shaft has been sunk, and one of the lodes cut, under very favourable circumstances.

There is ample water power for drainage and surface operations, slate for roofing, brick and fire clay, and stone for every purpose—also, abundance of peat of the finest quality, for the use of the mines, free of any charge.

Assays of the ores have produced 40 per cent. of pure lead.

Prospectuses and plans can also be had, on application, at the office of the Mining Journal, 26, Fleet-street, London.

BAGMILL TONTINE.—PROSPECTUS OF A TONTINE.

for the DISPOSAL of a valuable FREEHOLD FARM, in the fertile parish of ST. STEPHENS, by Saltash, CORNWALL, now in the possession of the owner.

Amount to be subscribed, or paid, for the purchase of the farm, and the defrayment of the expenses of the formation of the Tontine, £4000.

In 200 shares, of £20 each.—Deposit £5 per share.

WILLIAM HENRY FRANCE, Esq., of Plymouth.

GEORGE B. MURRY, Esq., of Langport.

BANKERS—The Devon and Cornwall Banking Co., Plymouth, and its several branches.

Mr. H. A. Olney, Saltash; Messrs. Woolcombe, Square, Stephens, & France, Plymouth.

DESCRIPTION OF THE PROPERTY.

The estate, or farm, called Bagmill, comprised in the above Tontine, is situated on the banks of the navigable part of the river Tavy, in the said parish of St. Stephens; distant about one mile from the proposed Cornwall Railway, which is intended to pass the river Tavy, by a bridge at Saltash, already authorised by Act of Parliament. It consists of a dwelling-house, garden, barn, and other suitable farm buildings, and contains about 45 acres of arable, meadow, and pasture land. It is watered by several never-failing streams, which, by judicious management, and a small outlay, might be so diverted as to irrigate, if required, nearly half the estate, and might be applied, if necessary, to the working of powerful machinery. The estate was recently let on lease, at the annual rent of £100; but is now in the hands of the proprietor.

PLAN OF THE TONTINE.

Each subscriber shall have the option of naming either himself or herself, or any other person whose age next birthday shall not be less than 21, but shall not be at liberty to appoint any nominee who has been previously named.

The surplus rents after payment of the current expenses of the management of the Tontine, to be divided annually on the 25th day of March, among those subscribers or proprietors whose nominees were living on the 25th day of December preceding.

Each party, on subscribing for a share or shares, is to pay a deposit of £5 per share to the banking company above named, to the credit of "The Bagmill-Tontine," and shall, before the expiration of 30 days after such payment, deliver to the collectors a written nomination of a life as his or her nominee, in respect of each such share, whose age on the next birthday shall be at least 21 years, accompanied by a certificate of baptism of such nominee, or by any statutory declaration, or other evidence of the age of such nominee, as the collectors shall reasonably require; and shall pay the residue of his or her subscription on the 25th day of December next.

That, if any of the nominees shall die before the whole of the shares shall have been taken, either by subscribers, or by the owner of the farm, as mentioned below, the party nominating such life may substitute another, whose age on the next birthday shall not be less than 21 years, as aforesaid.

Upon the death of all the nominees, whose life the Tontine shall be determined, and the whole of the said farm shall become the absolute property of the subscriber or proprietor, owning a share or shares, as the case may be, upon the life of the last surviving nominee; unless, shall happen, that one person shall at any time be entitled to the whole of the shares, in which case the trustees shall convey the property absolutely to such person; but that it shall be competent for all the proprietors for the time being, to determine the Tontine at any earlier period.

The Tontine is to be completed by the 25th day of December, 1846, or sooner, if filled up, when the property shall, with all convenient speed, be vested in the names of the two trustees. And in case any subscriber shall either neglect to appoint a nominee, or fail to pay the remainder of his or her subscription money, then his or her share or shares, with the deposit paid thereon, shall be absolutely forfeited to the owner of the farm, as if not subscribed for, and in this respect time shall be considered as the essence of the contract. And, thereupon, the whole of the subscribed sum shall be paid over to the owner of the farm, subject to the payment thereon, by him, of all the costs and expenses of, or incident to, the formation of the Tontine, and preparation and execution of the deeds for effecting the same.

The farm is subject to a charge during the life of a person now aged 83, or thereabouts, against which the Tontine will enter into a covenant of indemnity with the trustees.

The trustees shall always be two in number; and, in case of a vacancy, it shall be filled up on the nomination of the majority of the votes of the proprietors, personally present at a meeting convened for such purpose. Each proprietor to have one vote in respect of every share held by him or her.

On the 25th day of December next, any shares shall remain unsold, the same may be taken by the owner of the farm, on his nominating such lives in respect thereof as aforesaid, if he should think proper so to do; but if he should decline to take the same, then, unless the whole thereof shall be disposed of before the 25th day of March following, he shall return the deposit to the subscribers without any deduction.

A list of the subscribers, containing their names and residences—also the name, age, and residences of the nominees—will be furnished to each subscriber.

The necessary deeds shall be prepared by the solicitors to the Tontine; and the same shall be approved by counsel to be nominated by them.

Applications for shares, prospectuses, and plans, may be made to Mr. H. A. Olney, collector, Saltash; Messrs. Fuller and Saltwell, 15, Carlton Chambers, Regent-street, London; Messrs. Woolcombe, Square, Stephens, and France, Plymouth; G. B. Murry, Esq., collector, Langport, Somerset; and to the Share Brokers of Plymouth.

FORM OF APPLICATION.

I, the undersigned, do hereby declare that I am desirous of subscribing to the Bagmill Tontine, and I will accept the same, or any lesser number allotted to me, and sign the Deed of Settlement, and pay the deposit and remainder of the purchase money thereon, when required to do so.

Name in full.....

Address and profession, or business.....

Date.....

Name and address of reference.....

Signature.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

Witness.....

BRISTOL AND POOLE HARBOUR RAILWAY COMPANY.

Capital £1,000,000, in 50,000 shares, of £20 each.—Deposit £2 2s. per share.

REGISTERED PROVISIONALLY.

SIR E. DOUGHTY, Bart., 1, Upper House, Dorset.

JOHN SAMUEL WATKINS SAWBRIDGE EBLE DRAX, Esq., M.P., Chardonbury Park, Dorset.

J. WELD, Esq., Lulworth Castle, Dorset.

Colonel JOHN MICHEL, Dulish House, Dorset.

WILLIAM CANTWRIGHT, Esq., Proprietor of Collieries in Monmouthshire and Glamorganshire.

E. B. ASHFORD, Esq., Balcary, Somerset.

HENRY STRETTON, Esq., Ramsgate, Chairman.

Major J. B. Home, Army and Navy Club.

John Gray Wilson, Esq., Westbourne Grove.

Col. W. Mainwaring Sloane, Seymour-st.

Sir James Caley Anderson, Bart.

PROVISIONAL COMMITTEE.

(With power to add to their number.)

Fred. William Hamilton, Esq., 39, Gloucester-place.

Rees Price, Esq., M.D., Tyne Hall, Great North, Essex.

Capt. F. C. Newton, Bruton-street, and Lurgaville, Herefordshire.

Thos. Ottery Hayner, Esq., M.D., F.R.S., 1, Matthew's-place, Cambridge-st.

Lieut. Charles T. Hill, R.N., Queen's-square, Bristol.

Major J. M. Gurney.

Benjamin Head, Esq., 27, Gloucester-terrace, Kensington.

Edward Stanley, Esq., Canterbury.

J. Johnson, Esq., Davies-street, Berkeley-square.

G. Pusey, Esq., The Dells, Stoke Newington.

N. Crouch, Esq., South-place, Euston-square, and 64, Pall-mall.

R. B. Crofts, Esq., Hamilton-square, Birkenhead, Cheshire.

John Britten, Esq., Basinghall-street.

Lieut. Charles T. Hill, R.N., Queen's-square, Bristol.

Henry Lytton, Esq., Spring-terrace, Wandsworth.

Capt. Hippley, Somerset-street, Cavendish-street.

Wm. C. O'Connell, Esq., Upper Seymour-street, Portman-square.

LONDON AND COUNTY BANK; the London Joint-Stock Banking Company.

Messrs. Stuckey and Co.; National Provincial Bank of England; Messrs. Legard and Co.; Messrs. Baskerville and Co., Birmingham.

Messrs. George Rennie, Esq.

SECRETARIES (pro tem).—Messrs. Castleman and Kingston.

Gilbert Stephens, Esq., 13, Northumberland-street, Strand.

Messrs. Castleman and Kingston, Wimbome.

Since issuing the former prospectus, the committee being determined to proceed on the surest grounds, and anxious for the ultimate success of the undertaking, have made further and more minute inquiries into the remunerative traffic to be expected on this line; and they are warranted to state, that the result of such inquiries has greatly exceeded the expectations which they grounded their former prospectus.

This line of railway, commencing at Bristol, will open a direct communication with Poole, passing through or near the important towns and villages of Whitechurch, Pensford, Clutton, Shepton Mallet, Bruton, Castle Cary, Wincanton, Stralbridge, Sturminster Newton, Shillington, Stourpaul, Blandford, Salisbury, and Winchester, and thence to Poole Harbour; and thus, by means of the line of packets intended to be established by this company, from that port to the Channel Islands and Cherbourg, and the railways now in progress from the latter place to the French capital, and from thence to Lyons, will connect the line of commerce and trade from Bristol to the south of France; thus enabling that country to supply herself with many articles of commerce at little more than half the cost she at present pays, and leaving a good remunerative profit to the company and producer at home.

Among the various sources of traffic to be expected on this line, the following are the most prominent:—The supply of the Government with coal from the Welsh and Somersetshire pits, by means of the proposed line, for its different naval and steam depots throughout the world. The Somersetshire pits, which are 36 in number, yield at present, about 2000 per diem, but are capable of yielding a much larger quantity; and, supposing that 2000 tons were carried by the railway, it would save a distance of 40 miles for 300 days in the year, which is even less than the company have every reason to expect, it would yield a net return of £100,000, or 10 per cent. upon the estimated capital, deduct 40 per cent. for working the line, wear and tear, and there remains the sum of £60,000, or 6 per cent. per annum on the capital. There can be no doubt of the demand of this important article of general consumption, from the great diminution of price to the consumer by the costs of carriage being reduced to 1d. per ton per mile from the present cost, which is from 6d. to 10d. The supply of the Channel Islands (population more than 100,000), and of France, with the best species of coal for the production of gas, as well as for the use of their manufactures and for domestic purposes. This article, by means of the various coal-pits situated on the line, will yield to the company a very fine remunerative profit, and be of the greatest benefit to the coal proprietor, as the coal necessary for the purposes of gas can be obtained in very large quantities, and delivered at Cherbourg at one-third less than they are now giving for the same coal, and which cannot, therefore, fail to be of equal benefit to the merchant abroad, the producer at home, and the proposed company. Besides these two great sources of coal traffic, there is the supply of the southern coast, and the different districts on the line, with coal for domestic use, at a saving of from 6s. to 7s. per ton. This is a circumstance that cannot fail to secure to the company the entire traffic, and be of the greatest benefit to themselves and the public in general. In addition to this, the line will afford to the great manufacturing city of Bristol a more ready market for all those articles of commerce of which France and the Channel Islands stand so much in need, and which are manufactured in great quantities at that city; and as soon as the line is completed, tenders will at once be submitted to Government for the more speedy transmission of the mails to the Channel Islands, by which a saving of more than 12 hours will be effected, and to the north and north-west of Great Britain a saving of 24 hours.

There is also very considerable traffic to be derived from the various stone quarries, iron mines, and clay pits, which alone more than 50,000 tons annually; and from the sale of wheat, for the manufacture of glass, of which more than 10,000 tons annually are used in Birmingham alone; the present mercantile traffic which now goes round the Land's-end to the western ports; the great agricultural, manufacturing, and passenger traffic from the rich and populous districts through which the line passes; and the traffic which must be thrown upon the line from the Welsh iron and coal-masters, as being the nearest and most direct outlet to the continent for the produce of that country. Independent of remuneration, this line ought to be looked upon as a great national undertaking, and hence, if it will do away with the necessity for vessels now employed in the Dutch, Danish, Swedish, and Russian trade, bound to the western parts of England, going round the Land's-end, and at once opening to them the harbour at Poole, which has been pronounced by eminent engineers to be one of the best natural harbours in the world, and capable, at a small expense, of being made accessible to vessels of the largest class with perfect safety, and enabling them to send their cargoes to their different destinations in less time, and at less expense, than at present; by this means, not only will the shipowner and the merchant be greatly benefited, but the company will derive an immense annual revenue from the cargoes of northern produce thus landed at Poole, to be again distributed, by means of their railway, to the different manufacturing towns throughout this country, and the passenger traffic that would naturally follow a large portion of mercantile traffic cannot fail to yield to the company a very handsome return upon their outlay.

The average number of vessels detained in this trade in going round the Land's-end amounts, from the most authentic sources, to about 4000, each vessel averaging a detention of five days. The average tonnage of these vessels amounts to 130 tons, which would give six mts. to each vessel, working after the rate of £60 per month, which would give, for the number of days detained, £10 to each vessel; this, multiplied by the number of vessels, viz. 4000, would give the sum of £40,000, which will be entirely saved by means of this line. This is independent of the loss of life, destruction of property, expense of insurance, and loss of time, which would all be saved by the projected rail—the statistics of which, did space allow, would make every one look upon the present undertaking, not only as one of great local importance, but one of great national benefit.

The advantages have long been known and appreciated, and the present company have determined to bring them into play in the most full and efficient manner. The expense of storage at Poole, as well as the port dues, are less than at any port in the kingdom; so that the merchant would be enabled to keep his goods there at a less expense than at any other port. He would be enabled to perfect his cargoes for every three days from the northern parts; and, by means of the speedy communication by the electric telegraph, and the rapid travelling of the present day, many advantages and conveniences will be afforded.

A careful preliminary survey having been made by the company's surveyor, the line has been pronounced to present less than the average engineering difficulties, about 20 miles being through a rich, populous, and level valley. The harbour of Poole has also been surveyed, and the bar at the mouth of the harbour has been pronounced to be capable of removal, and is now actually being removed; thus opening to vessels of the largest tonnage one of the safest and most convenient harbours in the world.

These are a few of the advantages offered to the public by the projected line; and the committee, impressed with the sense of the excellence and legitimacy of the undertaking, and basing their views upon ascertained facts and undoubted evidence, feel themselves warranted in offering to all applicants for shares the following conditions:—viz. That no party taking shares in the said company shall be liable (in case of failure of the company) to a larger amount than 5s. per share, unless a greater sum shall be sanctioned at a general meeting of the shareholders called for that purpose; so that, in case the company fail at any period of time prior to such meeting being called, the committee pledge themselves to return £1 1s. per share instead of £2 2s. 6d., and a proportionately larger amount if the accounts of the company, upon inspection, show a less expenditure.

At the first general meeting of the shareholders the committee will produce an account, signed by the bankers, of the several sums received by them on account of the company, thereby warranting to the shareholders, that the amount subscribed is still in the hands of the bankers, minus the 5s. per share.

The future plans of the company will be laid before the shareholders at their first general meeting, and everything submitted to their investigation and approval.

To the Provisional Committee of the Bristol and Poole Harbour Railway Company.

I request you will allot me shares of £20 each, in the above undertaking, agreeably to the prospectus; and I agree to accept such shares as may be allotted me on the terms above mentioned, and also to pay the deposit thereon, and sign the Parliamentary contract and subscribers' agreement, when required.—Dated the day of 1846.

Name.....

Residence.....

Trade or profession.....

Reference.....

Address of reference.....

* Applications for shares may be made, in the above form, at the offices of the company, No. 1, King William-street, City; Gilbert Stephens, Esq., 13, Northumberland-street, Strand; Messrs. Castleman and Kingston, solicitors, Wimbome; T. Hay, Esq., solicitor, Shepton Mallet; S. Smith, Esq., Blandford; M. K. Welch, Esq., solicitor, Poole; R. Bates, Esq., Bridgewater; Messrs. Drew and Charlton, stockbrokers, Manchester; Messrs. J. Smith and Co., stockbrokers, Edinburgh; Messrs. Stanley and Wabrough, solicitors, Bristol; Messrs. Bradley and Barnard, stockbrokers, Bristol; Messrs. Hill and Williams, solicitors, Farnington; Gurney; A. McGeorge, Esq., 410, St. Vincent-street, Glasgow; Messrs. Lane and Perry, stockbrokers, Birmingham; Messrs. Thompson and Co., stockbrokers, Derby; and Messrs. Jones and Co., Bank-street, Dublin.

TOOTH-ACHE, TIC-DOLOREUX, & EAR-ACHE, instantly CURED, by using the celebrated GREGORIAN PASTE, which has never been known to fail in one single instance. It is perfectly harmless, and applied with the greatest ease. The Gregorian Paste is so well known and esteemed, that it is needless to speak of its virtues. Sold wholesale by F. Kuhn, 3, York-terrace, Commercial-road East, and by most respectable chemists.

A FRIEND IN NEED IS A FRIEND INDEED.

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A FRIEND IN NEED IS A FRIEND INDEED.

UNIVERSAL GAS BURNER—THIRTY TO FIFTY PER CENT. SAVED!

TO BE LET, ON LEASE, THE IRONSTONE IN TEESDALE.
In the county of Durham, belonging to his Grace the Duke of Cleveland, over an extent of 30,000 acres.—Terms and conditions may be known on application to Mr. S. Smith, Esq., R. by C. 10, near Darlington.—Raby Castle, Oct. 23, 1846.

EAST LINCOLNSHIRE RAILWAY.—TENDERS FOR IRON RAILS AND CHAIRS.—The directors are prepared to receive tenders for ONE THOUSAND SEVEN HUNDRED TONS OF IRON RAILS, and SIX HUNDRED TONS OF IRON CHAIRS.—The sections of the rails, and drawings and models of the chairs, may be seen at Mr. Fowler's office, 19 Abingdon-street, London, where a further information may be obtained.—Louth, Oct. 29, 1846.

SHEFFIELD & LINCOLNSHIRE JUNCTION RAILWAY.
TENDERS FOR IRON RAILS AND CHAIRS.—The directors are prepared to receive tenders for the SUPPLY OF ONE THOUSAND FIVE HUNDRED TONS OF IRON RAILS—each rail to be 15 feet in length, and weighing about 70 lbs. per yard. The exact process of manufacture must be described which it is proposed to adopt, so as to produce the best quality of iron in the rails. It is indispensable this description should accompany the tender; and the company will require from the party whose tender may be accepted, full authority for an agent to inspect the process of manufacture adopted at the works.

The directors are also prepared to receive tenders for the SUPPLY OF FIVE HUNDRED TONS OF IRON CHAIRS—the joint-chairs weighing about 30 lbs., and the middle chairs about 20 lbs. The chairs to be cast from best No. 3 pig-iron (without any admixture of Scotch), and run from the cupola, and must be manufactured by Messrs. Ransome and May's patent process.

The rails and chairs to be delivered on the line, at the town of Sheffield; and also on the Midland Railway, at or near Beighton—as ordered by the engineer.

The first cargo to be delivered in the first week in January, 1847; and afterwards in equal monthly instalments, until January, 1848, when the whole must be delivered.

The section of the rails, and drawings and models of the chairs, may be seen at Mr. Fowler's office, 19, Abingdon-street, London, where any further information may be obtained.

Tenders to be delivered on or before the 17th Nov., at the company's office, Sheffield.

By order of the directors,
Sh. field, Oct. 29, 1846. J. H. HUMFREY, Secretary.

BIRMINGHAM, WOLVERHAMPTON, AND DUDLEY RAILWAY.—At the First General Meeting of the shareholders of this company, held on Friday, the 30th Oct., 1846, at Three o'clock, at Dea's Royal Hotel, Birmingham, WILLIAM MATTHEWS, Esq. (the chairman of the company), in the chair.

The Secretary having read the advertisement convening the meeting, and produced the register of shareholders—

It was moved by the chairman, and seconded by Charles Telford, Esq.,

That the register of shareholders, now produced, be authenticated by the common seal of the company.

The report having been read—

It was moved by the chairman, and seconded by Richard Spooner, Esq., M.P.,

That the report of the directors, now read, be received and adopted, and printed for circulation amongst the shareholders.

It was moved by E. Buller, Esq., M.P., and seconded by Francis Mowatt, Esq.,

That the following gentlemen, be, and they are hereby elected, directors of the company:—THE EARL OF DARTMOUTH

THE LORD HATHERTON
THOMAS BARNALL, Esq.
FRED. PRATT BARLOW, Esq.
PHILIP H. MUNTZ, Esq.
HENRY SIMMONS, Esq.
RICHARD SPOONER, Esq., M.P.

It was moved by E. Buller, Esq., M.P., and seconded by John Crosthwaite, Esq.,

That the sum of £200 per annum be paid to the directors for their attendance to the business of the company—to be divided in such way as they may arrange; and that the thanks of the meeting be given to the late directors, for their gratuitous services and attention to the interests of the company.

It was moved by the chairman, and seconded by Philip Henry Muntz, Esq.,

That John Aston, Esq., of Birmingham, and Henry Scott, Esq., of West Bromwich, be elected the auditors of the company, and that they be allowed £20 each per annum.

It was moved by the chairman, and seconded by Richard Spooner, Esq., M.P.,

That the salary to the secretary be at the rate of £500 per annum.

It was moved by the chairman, and seconded by Francis Mowatt, Esq.,

That, as this meeting deem it expedient that an amalgamation of this company with the Birmingham and Oxford Junction Railway Company should be formed, the directors be authorised and requested, in conjunction with the directors of the Birmingham and Oxford Junction Railway Company, to apply to Parliament in the next ensuing session for an Act, or Acts, to carry such amalgamation into effect—providing in the said Act for power to lease or sell the two lines when amalgamated, or any part thereof, to the Great Western Railway Company—the directors being requested, and authorised, at once to negotiate with that company for some arrangement for that purpose.

The chairman having vacated the chair, it was moved—

That Richard Spooner, Esq., M.P., do take the chair.

It was moved by Lord Hatherton, and seconded by Charles Russell, Esq., M.P.,

That the best thanks of the meeting be given to the chairman, for the zeal and ability with which he has conducted the business of the day.

WESTERN GAS-LIGHT COMPANY.—At a Meeting of the freeholders, leaseholders, and inhabitant householders of Kensal-green, and its vicinity, called by the directors of the Western Gas-Light Company, in pursuance of a requisition from the before-named parties, and held at the Plough Tavern, Kensal-green, on Wednesday, the 4th Nov. inst., the following resolutions were unanimously agreed to:—

Proposed by Mr. Maxwell, seconded by Mr. Brown, and resolved,

1. That the company having distinctly stated it has been established for the manufacture of a purer and more brilliant gas than is now in use, to be made upon an entirely new principle, which will not contain any of the sulphuretted hydrogen, carbonic acid, and other noxious gases, that more or less contaminate the gas now used in the metropolis; and as the company, by the erection of works, and thereby jeopardising their property, afford the most ample assurance that the gas will not, in manufacture or use, be either a nuisance, or in any way offensive, or injurious to health or vegetation: resolved, that the inhabitants do postpone any further opposition to the establishment of the works, until, by the actual manufacture of the gas, it can be clearly ascertained whether it will be a nuisance or a public good.

Proposed by Mr. Abercrombie, seconded by Mr. Chamberlain, and resolved,

2. That this meeting, being thoroughly satisfied with the explanations and extracts from numerous affidavits of highly scientific men, given both by the chairman and engineer of the company; and, considering that the erection of the Western Gas-Light Works will afford extensive employment, and thereby promote the interest and prosperity of this neighbourhood, are determined to give its warmest support on the realisation of the company's assurance that no nuisance will be created by the manufacture of their gas.

Proposed by Mr. Langham, seconded by Mr. Dove, and resolved,

3. That the best thanks of this meeting be given to the directors of the Western Gas-Light Company, for their promptitude in calling the meeting, and for the liberal spirit which has induced their cordial compliance with our requisition.

It was then proposed, seconded, and resolved,

4. That G. L. Taylor, Esq., do leave the chair, and that Dr. Rose be called thereon.

Proposed by Mr. Maxwell, seconded by Mr. Johnson, and resolved,

5. That our unqualified thanks are due, and are hereby given, to Geo. L. Taylor, Esq., for his straightforward and impartial conduct in the chair.

Proposed by Mr. Abercrombie, seconded by Mr. Rowbottom, and resolved,

6. That the resolutions be advertised in the daily newspapers, and the Mining Journal.

THE PROJECTED RAILWAYS.

PATENT METALLIC SAND OR ENGLISH POZZOLANO.
—The PROPRIETORS OF THE METALLIC SAND, after many years' experience of its merits, confidently RECOMMEND it to the attention of Engineers, Architects, Builders, and the public generally, as an invaluable article for HYDRAULIC AND OTHER WORKS requiring great strength and durability.

In analysis, the metallic sand is very similar to the Italian Pozzolano—the value of which, in all subsequent works, has been well known to engineers and architects; but from its granular form, and the sharpness of its angles, and the increased quantity of iron it contains, the metallic sand has been found more durable, and much cheaper than any other similar material at present in use.

From its chemical qualities it forms, in admixture with lime and common sand, a cement, mortar, or concrete, of flinty hardness, and almost entire impenetrability; and from its adhesive and impervious qualities, it completely and for ever excludes water. The more it is exposed to the atmosphere, and to wet and damp, the harder and more durable it becomes. In the formation of mortar and concrete, it has been extensively used in the great tunnels on the London and Birmingham Railway, in the foundations of the New Houses of Parliament, sea walls on the North Devon Railway, Clifton Reservoirs, and other works of importance.

As an external stucco, the metallic sand cement is unaffected by frost or wet; in appearance it resembles the best Portland stone; requires, therefore, neither colour nor paint, and is entirely free from vegetative cracks and blisters, to which Roman cement is liable.

Further information will be given, and specimens shown, on application to Mr. C. K. Dyer, 4, New Broad-street; and at the Metallic Cement Wharf, King's Road (opposite East-street), Camden New Town, London.

ANALYSIS OF THE PATENT METALLIC SAND.

Silica 49 Lime 6
Oxide of iron 32 Magnesia 2
Alumina 6 Zinc 3
Arsenic and carbonate of copper 2

Copy of a Letter from "COLONEL HAWKER" (the well-known author on "GUNS AND SHOOTING")

Long parish house, near Whitechurch, Hants, Oct. 21, 1846.

Sir,—I cannot resist informing you of the extraordinary effect that I have experienced by taking only a few of your LOZENGES. I had a cough, for several weeks, that defied all that had been prescribed for me; and yet I got completely rid of it by taking about half a small box of your Lozenges, which I find are the only ones that relieve the cough without deranging the stomach or digestive organs.—I am, Sir, your humble servant,

To Mr. Keating, Sec. 79, St. Paul's Churchyard.

KEATING'S COUGH LOZENGES ARE PATRONISED also by His Majesty the King of Prussia, His Majesty the King of Hanover, and most of the Nobility and Clergy of the United Kingdom, and are especially recommended by the Faculty.

RECENT TESTIMONIAL.

DEAR Sir,—Having been, for a considerable time during the winter, afflicted with a violent cough, particularly at lying down in bed, which continued for several hours incessantly, and after trying many medicines without the slightest effect, I was induced to try your Lozenges; and, by taking about half a box of them, in less than 24 hours, the cough entirely left me, and I have been perfectly free from it ever since.

I am, dear Sir, yours, very respectfully,

Feb. 17, 1846. JAMES ELLIS.

(Late proprietor of the Chapter Coffee-house, St. Paul's.)

Prepared and sold in boxes, 1s. 1d., and 2s. 6d., and 10s. 6d. each, by T. Keating, chemist, Sec. 79, St. Paul's Churchyard, London; and retail by all druggists and patent medicine vendors in the kingdom.

N.B.—To prevent spurious imitations please to observe that the words "KEATING'S COUGH LOZENGES" are engraved on the Government stamp of each box.

Notice.—These Lozenges contain no opium, or any preparation of that drug.

WHEEL CURTIS COPPER MINING COMPANY, in the PARISH OF CROWAN, NEAR CAMBORNE, CORNWALL.
In 6000 shares, of £4 each.—Deposit £1 per share.

PROVISIONAL DIRECTORS.
GEORGE PILKINGTON, Esq., C.E., late Captain Royal Engineers.
GEORGE EVANS, Esq., C.E.
JOHN STAPLEY, Esq., Barrister-at-Law.
(Other shareholders will be shortly published.)
BANKERS—Messrs. Cunliffe, Brooks, Cunliffe, and Co.
SOLICITOR—Henry Bull, Esq.
SECRETARY—E. Mills, Esq.

This mine is in its infancy, the shaft being now only at the depth of 47 fathoms below the adit, nevertheless, it has already produced upwards of £10,000 by its copper ore, one-half of which was the late Mr. Thomas Teague, of Redruth, the celebrated mining capitalist, who worked this mine at his own individual cost, appears to have expended in carrying on the works, so that by reason of his decease the mine left in the hands of the executors was abandoned at the very point to which his hopes of wealth had been directed, and at a time when she was (according to Mr. Nicholas Vivian's and Joseph Vivian's report, as printed in prospectus) very productive. They also say, "it is our decided opinion that a valuable and profitable mine will be found if prosecuted to deeper levels." These gentlemen (the Vivians) are so well-known that their opinions are relied on by those accustomed to mining operations.

To follow up the foregoing opinions, it is necessary to fork the mine, and to sink a new shaft to the westward of the present one, directly over a rich bed of ore mentioned in the report of Capt. Richard Rowe and Mr. Henry Thomas, F.G.S., as in prospectus, and to open new and deeper levels, as well as to work effectually those already made, which Capt. Teague's decease prevented him accomplishing, and to carry on which works a powerful 70-horse engine has been required; therefore a company has been provisionally formed to carry out these objects, for which purpose it has been determined to distribute the interest of this mine into 6000 shares of £4 each, of which 3000 are to be appropriated for advances already made in putting it in its present state of forwardness, and the remaining 3000 are to be sold and appropriated for the above purposes, upon the delivery of which a deposit of £1 10s. per share will be required.

Of the 3000 shares above referred to, 1000 only remain to be allotted.

It is anticipated that the deposit on the 3000 shares will be adequate to the success of the undertaking, but should any further call be required, a general meeting of the shareholders will be summoned, when a statement of the affairs of the company will be submitted, and the holders of all the 6000 shares will be required to answer any call that may be made at such meeting, or forfeit their shares.

No call to be made before the 1st January, 1847, and such call not to exceed the sum of 1s. per share. No responsibility will attach to any shareholder beyond the deposits paid, and the calls to be made on the shares: this to be secured by registered deed of settlement, as well as law and equity can devise.

There are six lodges in this settlement, each considered equal in value to that of the neighbouring mine, called the Wheal Abraham, which yielded £300,000. Therefore £1,800,000 may be taken from this mine by well-directed energy.

It is a well-known fact that shares in mines recently opened under inferior prospects to those which Wheal Curtis presents, were purchased at as low a price as those now offered to the public, and have since realised £500 and upwards per share; and such is the confidence of the committee in the capabilities of this mine, that they have taken upon themselves to purchase at auction the splendid 70-horse engine of the Halloboness Mine, two boilers, pumps, and other materials, by which £1000 at least have been saved to the company. They are also pushing forward the proposed works with vigour, the progress of which since the first prospectus is stated in the second one.

The business of the company will be under the control of a committee of shareholders, of whom three shall form a quorum, and subject to such rules and regulations as may hereafter be determined. These to be selected from the best applicants for the 3000 shares now to be issued; and, before taking office, they shall be assured of the correctness of the statements hereinafter made.

The mine is taken with a lease of 21 years from Dec. 26, 1845; dues reduced to 1/18th.

To prevent any suspicion of partiality in the allotting of the shares, each applicant of good reference will immediately receive a letter of allotment for the whole amount of shares required, which, if not promptly paid into the bankers on the day prescribed in the said letter, will be granted to the next unsupplied applicant.

Reports of well-known mining capitalists will be found in prospectus, and any further information will be afforded at the offices, Gresham Rooms, Basinghall-street, where specimens of the ore may be seen.

Applications for shares to be made, at the above offices, to E. MILLS, Secretary, pro tem.

WHEEL CURTIS COPPER MINING COMPANY.—FINANCIAL ANNOUNCEMENT.—The £4500 to be raised by the deposit on the shares issued to the public will be applied to the purpose specified in the detailed estimate published in second prospectus, without deduction for rent of offices, salaries, or allowances to directors, or other officers connected with the direction of the company, they having consented to forego all claim to the same until the working of the mine shall exhibit a profit to the shareholders.

Shareholders holding 200 shares will be invited to become directors in the company under such provisions in the deed establishing it as will protect them from all responsibility beyond the amount of their shares, and a statement of receipts and payments will be printed for circulation on the first day of every month, and given to every shareholder on application.

The directors hold themselves as a responsible body, and abominate every thing like secrecy towards shareholders in the transaction of their business, believing that such a system, however legal, is pregnant with danger to their own characters.

Application for shares to be made at the offices of George Pilkington, Esq., the managing director, Gresham Rooms, Basinghall-street, addressed to E. MILLS, Esq.

VICTORIA TIN MINING COMPANY
(Late the Wheel Fortune Consols and other Setts.)
ON THE COST-BOOK SYSTEM.
Capital 10,240 shares, of £2 each.—Deposit £1 per share.

DIRECTORS.
JOHN HOLMES, Esq., Chairman.
CAPTAIN HAMILTON, J.P.
SAMUEL HODGKINS, Esq.
WILLIAM GARROW, Esq.
LOCAL MANAGERS—Captain James Clynworth: Mr. Thomas-Julian.

Commercial Bank of London, Lothbury, and Henrietta-street, Covent-Garden.
Sir Claude Scott, Bart., and Co., Cavendish-square.

SECRETARY—Lieut. W. H. Smith, R.N.

The mines of this company are situated in the parish of St. Stephen's, Branwell, in Cornwall, on the border of the parish of St. Denis, and are held at 1-15th dues, for a term of 21 years. They comprise some of the most extensive and promising setts in Cornwall, and are known to contain at least eight tin lodges, which have been partially worked, and found to be very productive. Some of the lodges are from 4 to 6 feet wide. Nos. 1 and 2 lodges, as may be seen by the map, are between 3 and 3 feet in width; and the other lodges are from 18 to 24 inches wide, containing excellent tin.

The reports of the surveyors and mining agents are highly encouraging, and fully warrant the belief that, by means of a moderate outlay, under judicious superintendence, the mines will forthwith realise a liberal profit for the shareholders.

The regulations of the company provide for the due registration and transfer of the shares, and that 21 days' notice shall be given of every call thereon: no call to exceed 6s. per share, but it is believed no call beyond the deposit will have to be made.

A general meeting of the proprietors will be held half-yearly, at which a full report of the company's affairs will be submitted by the directors.

The liability of the shareholders is limited to the number and amount of the shares which may be held by them respectively.

The shares will be allotted by the directors to the most eligible applicants on the 10th November, 1846.

Applications for shares may be addressed (until the 9th November, 1846), to the directors, at the temporary offices of the company, 1, Cophtham Chambers, London, where prospectuses may be obtained. By order, W. H. SMITH, Secretary.

VALENCIA SLATE COMPANY.
Capital £100,000, in shares of £10 each.

The VALENCIA SLATE QUARRIES, situated in the island of Valencia, on the south-west coast of Ireland, have been worked on a limited scale for a few years, during which time the superior quality of the slate, and its peculiar adaptation for sawing into slabs, have been fully established.

The demand for Valencia slate has now, in fact, become regular and extensive.—Having great strength, perfectly true surfaces, and not being affected by acids or grease, nor absorbing moisture, they have been found applicable to a vast variety of uses, and more particularly for factory floors, warehouses, granaries, maltstalls, stores, prisons, hospitals, railway stations, and for the floors, ceilings, and roofs of public buildings. The station at Birmingham is laid with Valencia slabs, and they are used at the Model Prison, Pentonville, at the new Houses of Parliament, and at numerous other public buildings in London.

There is also a large and increasing demand for Valencia slabs in the colonies, for co-drying floors, and for sugar-houses. For the purpose of more effectually attaining the enlarged scale of production required to meet the present great and still increasing demand, and of carrying out certain arrangements, whereby the cost of production will be greatly reduced, and the rate of profit increased, it is proposed to extend the capital embarked in the undertaking, and to convert the present proprietorship into a joint-stock company, to be constituted under a proper deed of settlement. The capital of this company to consist of 10,000 shares, of £10 each; 2500 of these shares, constituting a paid-up capital of £25,000, to represent the capital already invested by the present proprietors in uncoverings, buildings, mills, machinery, and plant; the remaining 7500 shares to be issued at par to such parties as shall be approved of by the provisional committee.

Prospectuses, containing more full details, and showing the immediate and large returns to be obtained, and also forms of applications for shares, may be had at the offices of Messrs. Palmer and Nottelshup, solicitors, 4, Trafalgar-square; and of Messrs. Field, Son, and Wood, stockbrokers, Warford-court, Throgmorton-street.

TO ENGINEERS AND BOILER-MAKERS.
LAP-WELDED IRON TUBES FOR STEAM-BOILERS.
THE BIRMINGHAM PATENT IRON TUBE COMPANY,
42, CAMBRIDGE-STREET, BIRMINGHAM, & SMETWICK, STAFFORDSHIRE,
MANUFACTURE TUBES under an exclusive license from Mr. Richard Prosser, the patentee. These tubes are now very extensively used in the boilers of marine and locomotive steam-engines in England and on the continent—they are stronger, lighter, cheaper, and more durable than brass or copper tubes, and warranted not to open in the weld. They may be fixed in the boilers without ferrules, and can be taken out and refixed without additional trouble or expense.—Address, 42, Cambridge-street, Crescent, Birmingham.

LONDON WAREHOUSE,
68, UPPER THAMES-STREET.

PATENT IMPROVEMENTS IN CHRONOMETERS,
WATCHES, AND CLOCKS.—E. J. DENT, 83, Strand, and 33, Cockspur-street, watch and clock maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in full holes, 6 gu. each; in gold cases, from £2 to £10 extra. Gold horizontal watches, with gold dials, from 6 gu. to 12 gu. each.

DENT'S PATENT DIPIEDOSCOPE, or meridian instrument, is now ready for delivery. Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

LA JAHOTIERE IRON-WORKS (LOIRE INFÉRIEURE).
COMPAGNIE EN COMMANDITE.
Constituted by Acte de Société, passed before Mr. Dutoit, in Paris, July 4, 1845.

Established under the French Law of Partnership, without personal liability to the shareholders, and under the inspection of a committee of shareholders.

Capital 1,000,000 fr., or £400,000, in shares of 1000 fr., 500 fr., and 250 fr., or £40, £20, and £10 each.

Deposit 25 per cent. per share on allotment—the remainder by three instalments, at intervals of four months each.—Dividend to commence from the payment of last instalment, but 5 per cent. interest allowed on each instalment in the meanwhile.

COMMITTEE OF INSPECTION.
BENJAMIN IFILL, Esq.
CLEMENT TABOR, Esq.
CHARLES POCOCK, Esq.
(With power to add to their number.)

RESPONSIBLE MANAGERS.
EUGENE DE FREZ, Esq., Nantes.
T. LAMIE MURRAY, Esq., 28, Cornhill.

BANKERS—The Commercial Bank, Lothbury.

SOLICITOR—William Tatham, Esq., 22, Throgmorton-street.

The success which has attended the iron-works established by the company at La Jahotiere—the high price of iron in France, and the moderate cost at which the company are making pig-iron, owing to the cheapness and yield of the materials, which, by a long lease, they have secured—has induced the company to resolve on an immediate extension of the capital, in order to increase their make, and to commence the manufacture of bar and railway iron, which, for many years to come, is likely to increase in demand, and command high prices.

The company intend, without loss of time, to erect two more furnaces and a rolling-mill, and increase the make to 8000 tons of pig-iron per annum. This extension is founded on the result of experience, and may be stated as follows:—

Cost of making one ton of former pig-iron at La Jahotiere Fr. 100, 0s. 24 0 0
Selling price in France of one ton No. 1 foundry Fr. 190 to 220, or £7 15s. to 8 17 0
pig-iron

Estimated cost of one ton of bar-iron made at La Jahotiere Fr. 150, or £7 18 0
Selling price of one ton bar-iron in France Fr. 395 to 400, or £15 15s. to 16 0 0

The present extension of shares is made at par. Shares in iron-works in France are realising high prices, as will be seen by the following extract from the Mining Journal of 10th October last:—

"The iron monopoly in this country has naturally had the effect of sending up the shares in the iron establishments to an enormous price. The present price of the Decazeville shares is 3500 fr., which is seven times more than that at which they were issued. Other establishments have been yet more profitable. That of Terre Noire, near St. Etienne, for example, pays dividends equal to 75 or 76 per cent. on its original capital. Its shares are scarcely ever to be found in the market; but when by chance any do appear, there is great competition to obtain them, and it is by no means unusual to see half-shares sold at from 42,000 to 45,000 fr."

In England applications for prospectuses and shares to be made to William Tatham, Esq., 22, Throgmorton-street; to R. Frodinck, Three King's-court, Lombard-street; to the managers, or committee, under cover, to the committee of inspection.

PATENT GALVANISED IRON COMPANY.—At the Half-yearly General Meeting of the shareholders, held at the London Tavern, on Tuesday, the 20th October, the directors declared a dividend of 3 per cent. for the half-year ending 30th June, the same to be payable on and after the 16th November next.

The undermentioned resolutions were also unanimously adopted:—

Resolved—That the report and accounts now submitted be received, approved, and entered on the minutes.

Resolved—That John Polliott Powell, Esq., be elected a director of this company.

Resolved—That Mancel Jouquin Soares, Esq., be elected a director of this company.

Resolved—That a further call of £1 per share be made on the new capital of the company, created 28th October, 1845; and that the same be payable on 15th January next.

Resolved—That the directors be requested to take such measures for the disposal of the shares in the new capital of the company yet unappropriated, as they may think best.

Resolved—That the thanks of this meeting be presented to the directors for the ability with which they have conducted the company's affairs.

Resolved—That the thanks of this meeting be given to Messrs. Malins and Rawlinsons for their zeal and attention to the interests of this company.

Resolved—That the thanks of the meeting be given to Mr. Mathews for the valuable assistance he has rendered the company's managers.

Resolved—That the thanks of the meeting be given to the auditors, the Rev. Professor Ifill, and Dr. R. McNab, Esq., for their services.

Resolved—That the best thanks of the meeting be given to the chairman for his able conduct in the chair this day.

S. VINCENT, Secretary.

3, Manxio-House, London.

AMHEROEE WHEEL MARIA MINING COMPANY.—At a Meeting of adventurers, held, pursuant to circular, at the offices of the secretary, 4, King-street, Cheapside, on Thursday, the 5th Nov., 1846, being one of the periodical meetings under the Cost-book System.

JOHN EDWARDS, Esq., in the chair.

The minutes of the proceedings of the committee, since the last meeting, were read, also the circular convening the present meeting.

Mr. Cawthra (the secretary) having read the report, the accounts were submitted to the meeting.—A list of the arrears—the total amount being £218 6s.—was then read.